



# VITEK<sup>®</sup> MS



## SARAMIS<sup>®</sup> Knowledge Base V4.17 User Manual Supplement

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For Research Use Only - Not for *in vitro* diagnostic use - EN

## General Information

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Screens and equipment are not shown to scale.*

**IMPORTANT:** *Please read this document carefully before using the VITEK® MS Plus / RUO system.*

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# 1

## Preparation Protocols

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**IMPORTANT:** *The following protocols are for research use only (RUO) and not for use in diagnostic procedures with clinical specimens.*

**Note:** *For general sample set up information, please refer to the VITEK® MS Plus Workflow User Manual.*

### Preparation of the *Escherichia coli* ATCC® 8739™ Calibration Strain

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**Note:** *ECAL1, ECAL2, ECAL3 are the 3 spots used to deposit the calibrant on the VITEK® MS-DS target slide.*

The *E. coli* ATCC® 8739™ strain for the calibration should be incubated for 18 to 24 hours at 35°C ± 2°C on blood agar under aerobic atmosphere.

The *E. coli* ATCC® 8739™ strain has to be deposited on positions: ECAL1, ECAL2, ECAL3, depending on the number of samples tested (one calibrant per acquisition group of 16 spots).

1. Using a loop, collect cells of *E. coli* ATCC® 8739™ onto the calibration spot of each acquisition group being used on the VITEK® MS-DS target slide.
2. Immediately add 1 µL of VITEK® MS-CHCA matrix to each calibration spot using a pipette. Replace pipette tips after each individual addition of matrix.
3. Allow each spot to dry completely.

*For more information about the *E. coli* ATCC® 8739™ calibration strain preparation protocol, see [Appendix - Protocol to Use and Store \*E. coli\* ATCC® 8739™ for Calibration on page A-1.](#)*

## Preparation of Bacteria

### WARNING



Powder-free gloves should be used when handling VITEK<sup>®</sup> MS-DS target slides.

**IMPORTANT:** Do not use loops that may have come into contact with anything other than the sample strain to be tested.

Avoid collecting any agar when picking up cells from the agar plate as this may lead to poor identification results.

Some microorganisms, such as streptococci, grow in very small colonies. In such cases, pick up several similar colonies and deposit them on the same spot.

Do not deposit more than 1 (Single Deposit Mode) or 2 (Duplicate Deposit Mode) samples at a time before adding the VITEK<sup>®</sup> MS-CHCA matrix to the target slide spots.

Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.

Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix. Change the pipette tip after each individual deposit to avoid contamination of the matrix.

**Note:** The VITEK<sup>®</sup> MS-CHCA matrix contains organic solvents. It is recommended to close the tube after dispensing to avoid evaporation.

**IMPORTANT:** If you spill any *E. coli* ATCC<sup>®</sup> 8739<sup>™</sup> or VITEK<sup>®</sup> MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and sample.

1. Spot the *E. coli* ATCC<sup>®</sup> 8739<sup>™</sup> control organism and the VITEK<sup>®</sup> MS-CHCA matrix on the calibration spot prior to spotting the sample.
2. Collect a portion of an isolated colony using a 1  $\mu$ L loop.
3. Apply the sample to the center of the spot.

The appropriate amount on a spot is shown in the pictures below.



Too much



Not enough



OK

**Note:** Take special care not to apply too much.

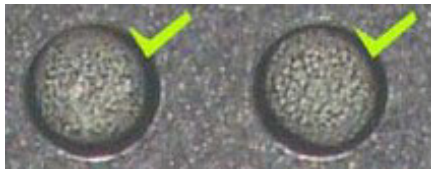
- Smear a thin layer of the sample on the spot using the 1  $\mu$ L loop and discard the used loop.



- Add 1  $\mu$ L of VITEK<sup>®</sup> MS-CHCA matrix to the center of the spot using a pipette and cover the entire deposit.
- Discard the pipette tip.
- Allow the spot to dry completely.
- Repeat the procedure using fresh loops and pipette tips to deposit other samples (if any).
- Approximately five minutes later, depending on air humidity, check for crystal formation on the spots.

Inexperienced users may want to use a magnifying glass.

A sign of successful measurement is only if matrix crystals have become visible as a yellowish film. Ideally, most of the spot's surface will be coated with crystals.



- Run the target slide in the VITEK<sup>®</sup> MS instrument according to the instructions included in the VITEK<sup>®</sup> MS Plus Workflow User Manual or in the VITEK<sup>®</sup> MS Instrument User Manual.

**Note:** It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK<sup>®</sup> MS-DS target slide.

**IMPORTANT:** Once the VITEK<sup>®</sup> MS-DS target slide is prepared, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.

*If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.*

**IMPORTANT:** If a result of *Mycobacterium* is obtained by direct deposit, it must be confirmed by retesting the strain using the extraction kit and protocol (refer to [Preparation of Mycobacterium and Nocardia from a Solid Medium \(page 1-6\)](#)).

*If all the acquisition groups have not been used, store the VITEK<sup>®</sup> MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.*

## Preparation of Yeasts

### WARNING



Powder-free gloves should be used when handling VITEK<sup>®</sup> MS-DS target slides.

**IMPORTANT:** Do not use loops that may have come into contact with anything other than the sample strain to be tested.

**Avoid collecting any agar when picking up the cells from the agar plate as this may lead to poor identification results.**

**Do not deposit more than 1 (Single Deposit Mode) or 2 (Duplicate Deposit Mode) samples at a time before adding the VITEK<sup>®</sup> MS-CHCA matrix to the target slide spots.**

**Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.**

**Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix and the VITEK<sup>®</sup> MS-FA. Change the pipette tip after each individual deposit to avoid contamination of the reagents.**

**Note:** The VITEK<sup>®</sup> MS-CHCA matrix contains organic solvents. It is recommended to close the tube after dispensing to avoid evaporation.

The preparation of yeasts differs from the standard procedure in that VITEK<sup>®</sup> MS-FA is applied to the sample prior to adding the VITEK<sup>®</sup> MS-CHCA matrix.



Figure 1-1: Yeast immediately after VITEK<sup>®</sup> MS-FA treatment



1. Spot the *E. coli* ATCC<sup>®</sup> 8739<sup>™</sup> control organism and the VITEK<sup>®</sup> MS-CHCA matrix on the calibration spot prior to spotting the sample.

**IMPORTANT:** *If you spill any E. coli ATCC<sup>®</sup> 8739<sup>™</sup> or VITEK<sup>®</sup> MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and sample.*

2. Collect a portion of an isolated colony using a 1 µL loop.
3. Apply the sample to the center of the spot. See [Preparation of Bacteria on page 1-2](#) to deposit the correct amount of sample.
4. Smear a thin layer of the sample on the spot using the 1 µL loop.
5. Discard the used loop.
6. Add 0.5 µL of VITEK<sup>®</sup> MS-FA to the spot using a pipette.
7. Discard the pipette tip.



**CAUTION:** Do not treat the *E. coli* calibration strains on positions ECAL1, ECAL2, ECAL3 with VITEK<sup>®</sup> MS-FA.

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8. Repeat the procedure using fresh loops and pipette tips to deposit other samples (if any).
9. For efficient extraction, it is important to allow for evaporation of the VITEK<sup>®</sup> MS-FA before adding the matrix.

**Note:** *Evaporation usually takes between 1 and 3 minutes or longer depending on the air humidity and others factors like temperature.*

10. Add 1 µL of VITEK<sup>®</sup> MS-CHCA matrix as described in the section about [Preparation of Bacteria on page 1-2](#).
11. Allow the spot to dry completely.
12. Run the target slide in the VITEK<sup>®</sup> MS instrument according to the instructions included in the *VITEK<sup>®</sup> MS Plus Workflow User Manual* or in the *VITEK<sup>®</sup> MS Instrument User Manual*.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK<sup>®</sup> MS-DS target slide.*

**IMPORTANT:** *Once the VITEK<sup>®</sup> MS-DS target slide is prepared, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

*If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.*

*If all the acquisition groups have not been used, store the VITEK<sup>®</sup> MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.*

## Preparation of *Mycobacterium* and *Nocardia* from a Solid Medium

### WARNING



Powder-free gloves should be used when handling VITEK® MS-DS target slides.

### WARNING



To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Mycobacterium*.

All manipulations of *Mycobacterium* must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of *M. tuberculosis* or *Mycobacterium* sp. grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.



**CAUTION:** It is recommended to use registered tuberculocidal disinfectant solution to clean the Biological Safety Cabinet and soak the plastic-backed absorbent cloth inside the BSC.

**IMPORTANT:** Do not use loops or cytology brushes that may have come into contact with anything other than the sample strain to be tested.

**Avoid collecting any agar when picking up the cells from the agar plate as this may lead to poor identification results.**

**Make sure that only fresh, sterile loops or cytology brushes are used. Discard the loop or cytology brush after each sample preparation.**

**Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix and the VITEK® MS Mycobacterium/Nocardia kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.**

**Note:** The VITEK® MS-CHCA matrix and the VITEK® MS Mycobacterium/Nocardia kit reagents contain organic solvents. It is recommended to close all packaging after dispensing to avoid evaporation.

If *Nocardia* strains are not embedded in the agar, direct deposit is also possible (refer to [Preparation of Bacteria on page 1-2](#)).

1. For each organism to be tested, transfer 500 µL of 70% ethanol to a 2 mL microcentrifuge tube containing approximately 200 µL of 0.5 mm glass beads.
2. **For Mycobacterium**, use a 1 µL loop to pick up and transfer one loopful of the cells to the tube and cap securely.

**For Nocardia**, use a 1 µL loop (one loopful) or a curved cytology brush (in case of an embedded strain) to gently pick up and transfer cells to the tube and cap securely.

3. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).

**Note:** *When working with BSL-3 Mycobacterium, it is recommended to place the bead beater-type homogenizer inside the Biological Safety Cabinet.*

*If the mechanical disruption is performed outside the Biological Safety Cabinet, seal the tube top with parafilm or equivalent to avoid aerosolization or spills.*

4. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation.

**IMPORTANT: Keep the tube upright.**

**Note:** *The following steps can be performed outside the Biological Safety Level 3 Cabinet.*

5. Mix for 5 to 10 seconds using a vortex-type mixer and immediately transfer the suspension into an empty 2 mL round-bottomed tube using a pipette. Avoid transferring any glass beads. Discard the pipette tip.

**Note:** *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

6. Centrifuge the sample at 10,000 to 14,000 g for 2 minutes to create a pellet.
7. Discard all the supernatant using a pipette.

**Note:** *If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow ethanol to evaporate.*

8. Add 10 µL of 70% formic acid to the pellet. Resuspend by aspiration/dispensing using a pipette until the pellet is uniformly dispersed, or directly with a vortex-type mixer.
9. Add 10 µL of 100% acetonitrile and mix using a vortex-type mixer.
10. Centrifuge the sample at 10,000 to 14,000 g for 2 minutes to create a pellet.

**IMPORTANT: If you are working inside the Biological Safety Cabinet, make sure you replace the previously used plastic-backed absorbent pad with a fresh one soaked in tuberculocidal disinfectant.**

11. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting samples.

**IMPORTANT: If you spill any *E. coli* ATCC® 8739™ or VITEK® MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.**

12. For each sample, transfer 1  $\mu\text{L}$  of the supernatant on the designated target slide spot.
13. Allow each spot to dry completely.

**Note:** *If the spots are not completely dry before adding the VITEK<sup>®</sup> MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK<sup>®</sup> MS results (No Identification).*

14. Add 1  $\mu\text{L}$  of VITEK<sup>®</sup> MS-CHCA matrix to each target slide spot using a pipette.
15. Discard the pipette tip.
16. Allow each spot to dry completely.
17. Run the target slide in the **VITEK<sup>®</sup> MS** instrument according to the instructions included in the *VITEK<sup>®</sup> MS Plus Workflow User Manual* or in the *VITEK<sup>®</sup> MS Instrument User Manual*.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK<sup>®</sup> MS-DS target slide.*

**IMPORTANT:** *Extract supernatants can be stored at  $-20^{\circ}\text{C}$  for up to 14 days. Before spotting, extract must be thawed and then centrifuged at 10,000 to 14,000 g for 2 minutes.*

**Once the VITEK<sup>®</sup> MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.**

**If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.**

**If all the acquisition groups have not been used, store the VITEK<sup>®</sup> MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.**



**CAUTION:** If you are working inside the BSL-3 laboratory and the **VITEK<sup>®</sup> MS** instrument is located outside the laboratory, apply tuberculocidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

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## Preparation of *Mycobacterium* from a Liquid Medium

### WARNING



Powder-free gloves should be used when handling VITEK<sup>®</sup> MS-DS target slides.

### WARNING



To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Mycobacterium*.

All manipulations of *Mycobacterium* must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of *M. tuberculosis* or *Mycobacterium* sp. grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.



**CAUTION:** It is recommended to use registered tuberculocidal disinfectant solution to clean the Biological Safety Cabinet and soak the plastic-backed absorbent cloth inside the BSC.

**IMPORTANT:** Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix and the VITEK<sup>®</sup> MS *Mycobacterium*/*Nocardia* kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

**Note:** The VITEK<sup>®</sup> MS-CHCA matrix and the VITEK<sup>®</sup> MS *Mycobacterium*/*Nocardia* kit reagents contain organic solvents. It is recommended to close all packaging after dispensing to avoid evaporation.

1. Test positive BACT/ALERT<sup>®</sup> MP bottles, BACTEC<sup>™</sup> MGIT<sup>™</sup> 960 or VersaTREK<sup>®</sup> Myco bottles between 24-72 hours post-positivity as determined by the detection instrument.

**Note:** *If the bottles or tubes are removed from the instrument for other tests, continue to incubate them at 35°-37°C in an incubator until they have been incubated for 24-72 hours post-positivity.*

2. Between 24-72 hours post-positivity, mix the bottle or tube for 5 to 10 seconds using a vortex-type mixer.
3. Transfer immediately, and, aseptically, 3 mL of sample into the 5 mL centrifuge tube. When testing BACT/ALERT<sup>®</sup> MP bottles, use an 18 G (or larger) needle for sample aspiration.

**Note:** *After the aliquot is removed, place the positive bottle or tube at 35-37°C in an incubator for further testing, if needed.*

4. Use a swing bucket centrifuge with a 15 mL adaptor to centrifuge the 5 mL centrifuge tube at 3,000 g for 10 minutes to create a pellet.
5. Decant the medium into a waste container and completely blot dry onto a plastic-backed absorbent pad.

### WARNING



**The medium may contain viable mycobacteria and should be handled as biologically hazardous waste.**

6. Add 500 µL of 70% ethanol to the 5 mL microcentrifuge tube and use a pipette to gently mix up and down to resuspend the pellet.
7. Transfer the suspension to a tube containing glass beads.
8. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).

**Note:** *When working with BSL-3 Mycobacteria, it is recommended to place the vortex mixer with adaptor, or bead beater-type homogenizer, inside the Biological Safety Cabinet.*

*If the mechanical disruption is performed outside the Biological Safety Cabinet, seal the tube top with parafilm or equivalent to avoid aerosolization or spills.*

9. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation. Keep the tube upright.

**Note:** *The following steps can be performed outside the Biological Safety Level 3 Cabinet.*

10. Mix the content for 5 to 10 seconds using a vortex-type mixer
11. Transfer immediately the suspension into an empty 2 mL round-bottomed tube using a pipette. Avoid transferring any glass beads.
12. Discard the pipette tip.

**Note:** Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.

13. Centrifuge the tube at 14,000 g for 2 minutes to create a pellet.
14. Aspirate and discard all the supernatant using a pipette and carefully to remove all visible liquid without disturbing the pellet.

**Note:** If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow for ethanol evaporation.

15. Add 10 µL of 70% formic acid to the 2 mL round-bottomed tube and gently resuspend the pellet.

**Note:** If the pellet is not visible, wash the sides of the tube with 70% formic acid to ensure resuspension.

16. Mix for 5 to 10 seconds using a vortex-type mixer.
17. Add 10 µL of 100% acetonitrile.
18. Mix for 5 to 10 seconds using a vortex-type mixer.
19. Centrifuge the tube at 14,000 g for 2 minutes to create a pellet.

**IMPORTANT:** If you are working inside the Biological Safety Cabinet, make sure you replace the previously used plastic-backed absorbent cloth with a fresh one soaked in tuberculocidal disinfectant.

20. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting samples.

**IMPORTANT:** If you spill any *E. coli* ATCC® 8739™ or VITEK® MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.

21. For each sample, transfer 1 µL of the supernatant from step 19 on the designated target slide spots.
22. Allow each spot to dry completely.

**Note:** If the spots are not completely dry before adding the VITEK® MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK® MS results (No Identification).

23. Add 1 µL of VITEK® MS-CHCA matrix to each target slide spot using a pipette.
24. Discard the pipette tip.
25. Allow each spot to dry completely.
26. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual or in the VITEK® MS Instrument User Manual.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK<sup>®</sup> MS-DS target slide.*

**IMPORTANT:** *Extract supernatants can be stored at -20°C for up to 14 days. Before spotting, extract supernatant must be thawed and then centrifuged at 14,000 g for 2 minutes.*

**IMPORTANT:** *Once the VITEK<sup>®</sup> MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

*If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.*

*If all the acquisition groups have not been used, store the VITEK<sup>®</sup> MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.*



**CAUTION:** If you are working inside the BSL-3 laboratory and the VITEK<sup>®</sup> MS instrument is located outside the laboratory, apply tuberculocidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

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## Preparation of Moulds

### WARNING



Use a safety cabinet, wear a laboratory coat, powder-free gloves and oversleeves.



**CAUTION:** Use the appropriate procedure/product to clean the material.

**IMPORTANT:** *Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.*

**Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix and the VITEK<sup>®</sup> MS Mould kit reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.**

**Note:** *The VITEK<sup>®</sup> MS-CHCA matrix and the VITEK<sup>®</sup> MS Mould Kit reagents contain organic solvents. It is recommended to close all packaging after dispensing to avoid evaporation.*

1. Add 900 µL of 70% ethanol in a 2 mL round-bottomed tube.
2. Wet a sterile cotton swab using suspension medium or sterile deionized water.
3. Press the swab against the side of the tube to remove excess liquid.
4. Collect a 1 to 2 cm diameter circle (approx.) of mould from the agar plate using the swab, selecting spores (conidia) and hyphae if possible.
5. Suspend the collected material in the tube prepared in the first step.
6. Mix the suspension using a vortex-type mixer.

**Note:** *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

7. Centrifuge the round-bottomed tube at 10,000 to 14,000 g for at least 2 minutes.

**Note:** *If you need to remove the tubes from the safety cabinet for the centrifugation steps, make sure you clean them with sporicidal agent in order to avoid laboratory contamination.*

8. Discard all the supernatant using a pipette and without dislodging the pellet.
9. Add 40 µL of 70% formic acid and completely resuspend using a vortex-type mixer.
10. Add 40 µL of acetonitrile and mix using a vortex-type mixer.

11. Centrifuge for at 10,000 to 14,000 g at least 2 minutes.

After this step, the inactivation is complete.

**Note:** *The following steps can be performed outside the Biological Safety Cabinet.*

12. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the protein extraction.

**IMPORTANT:** *If you spill any *E. coli* ATCC® 8739™ or VITEK® MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and protein extraction.*

13. Deposit 1 µL of the sample supernatant on the designated target slide spot.
14. Allow the spot to dry completely.
15. Add 1 µL of VITEK® MS-CHCA matrix to each target slide spot using the pipette and replacing the pipette tip after each addition of matrix.
16. Allow the spot to dry completely.
17. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual or in the VITEK® MS Instrument User Manual.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

**IMPORTANT:** *Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

*If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.*

*If all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.*

## Preparation of *Mycoplasma*

### WARNING



Use a safety cabinet, wear a laboratory coat, powder-free gloves and oversleeves.

**IMPORTANT:** Make sure that only fresh, sterile pipette tips come into contact with the VITEK® MS-CHCA matrix and the 0.45% NaCl sterile aqueous solution. Change the pipette tip after each individual deposit to avoid contamination of the reagents.

**Note:** The VITEK® MS-CHCA matrix contains a high concentration of organic solvents. It is recommended to close all packaging after dispensing, to avoid evaporation.

1. From positive liquid culture, transfer 1 mL of the sample into a 1.5 mL conical microcentrifuge tube.

**Note:** Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.

2. Centrifuge the tube at 14,000 to 20,000 g for 30 minutes to create a pellet.
3. Discard the supernatant using a pipette.
4. Add 500 µL of 0.45% NaCl sterile aqueous solution.
5. Use a pipette to gently mix up and down to resuspend the pellet.
6. Centrifuge the tube at 14,000 to 20,000 g for 30 minutes to create a pellet.
7. Discard the supernatant using a pipette.

## 8. Depending on the presence of a pellet:

If the pellet is visible:	If the pellet is not visible:
1. Add 5 µL (for small pellet) to 10 µL (for large pellet) of 0.45% NaCl sterile aqueous solution to gently resuspend the pellet.	1. Add 3 µL of VITEK <sup>®</sup> MS-CHCA matrix to gently resuspend the pellet.
2. Spot the <i>E. coli</i> ATCC <sup>®</sup> 8739 <sup>™</sup> control organism and the VITEK <sup>®</sup> MS-CHCA matrix on the calibration spot prior to spotting the samples.	
<b>IMPORTANT: If you spill any <i>E. coli</i> ATCC<sup>®</sup> 8739<sup>™</sup> or VITEK<sup>®</sup> MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and sample.</b>	
3. Deposit 1 µL of the suspension on the designated target slide spot. 4. Allow the spot to dry completely. 5. Add 1 µL of VITEK <sup>®</sup> MS-CHCA matrix to the target slide spot using a pipette. 6. Discard the pipette tip. 7. Allow the spot to dry completely.	3. Deposit 1.5 µL of the suspension on the designated target slide spot. 4. Allow the spot to dry completely.  <b>Note:</b> <i>There is no need to add VITEK<sup>®</sup> MS-CHCA matrix.</i>

9. Run the target slide in the VITEK<sup>®</sup> MS instrument according to the instructions included in the VITEK<sup>®</sup> MS Plus Workflow User Manual or in the VITEK<sup>®</sup> MS Instrument User Manual.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK<sup>®</sup> MS-DS target slide.*

*If the pellet is not visible and the VITEK<sup>®</sup> MS instrument gives NoID result, the growth may have been insufficient. In this case, re-incubate the culture broth and re-analyze the Mycoplasma sample following the same protocol.*

**IMPORTANT:** *Once the VITEK<sup>®</sup> MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 24 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

**If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.**

**If all the acquisition groups have not been used, store the VITEK<sup>®</sup> MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.**

**Preparation of *Brucella*, *Burkholderia mallei* and *Burkholderia pseudomallei*****WARNING**

Powder-free gloves should be used when handling VITEK<sup>®</sup> MS-DS target slides.

**WARNING**

To reduce the risks of accidental exposure to infectious agents, additional precautions should be taken when manipulating *Brucella*, *Burkholderia mallei* and *Burkholderia pseudomallei*.

All manipulations of those BSL-3 species must be performed using a Biological Safety Cabinet (Type IIA) with certified HEPA filters while wearing appropriate protective equipment to comply with safety standards set forth by your institution or CDC/NIH or WHO for Biosafety Level 3 Practices.

For activities involving the propagation and manipulation of those BSL-3 species grown in culture, Biosafety Level 3 Practices, containment equipment, and facilities are recommended.

Wear a laboratory coat, powder-free gloves and oversleeves.

**IMPORTANT:** Do not use loops that may have come into contact with anything other than the sample strain to be tested.

**Avoid collecting any agar when picking up the cells from the agar plate as this may lead to poor identification results.**

**Make sure that only fresh, sterile loops are used. Discard the loop after each sample preparation.**

**Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix and the inactivation solvent mixture. Change the pipette tip after each individual deposit to avoid contamination of the matrix.**

**Note:** The VITEK<sup>®</sup> MS-CHCA matrix and the inactivation solvent mixtures contain organic solvents. It is recommended to close all packaging after dispensing to avoid evaporation.

1. Prepare a fresh inactivation solvent mixture as described below. This solvent mixture must be prepared on the day of use.

The quantities shown below can accommodate approximately 100 extractions; the formula should be scaled down accordingly.

- First mix:
  - 7 mL of suspension medium or sterile deionized water
  - 7 mL of absolute ethanol (HPLC grade)
  - 7 mL of acetonitrile (HPLC grade)
- Homogenize.
- Add 630 µL of trifluoroacetic acid (TFA) (HPLC grade).
- Homogenize.

2. For each organism to test, transfer 200 µL of solvent mixture in a 2 mL round-bottomed tube.
3. Use a sterile 1 µL loop to suspend 2 full loops of test organism in the tube and mix using a vortex-type mixer.
4. Mix for 5 minutes at maximum speed using a vortex-type mixer with adaptor.
5. Remove from the vortex-type mixer and incubate the tube at room temperature for 10 minutes to complete the inactivation. **Keep the tube upright.**

**Note:** Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.

6. Centrifuge the sample at 14,000 g for 2 minutes to create a pellet.
7. Discard the supernatant using a pipette.
8. Add 10 µL of VITEK<sup>®</sup> MS-CHCA matrix directly on the pellet **without disturbing the pellet.**

**Note:** The following steps can be performed outside the Biological Safety Level 3 Cabinet.

9. Spot the *E. coli* ATCC<sup>®</sup> 8739<sup>™</sup> control organism and the VITEK<sup>®</sup> MS-CHCA matrix on the calibration spot prior to spotting the sample preparation.

**IMPORTANT:** If you spill any *E. coli* ATCC<sup>®</sup> 8739<sup>™</sup> or VITEK<sup>®</sup> MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and sample preparation.

**IMPORTANT:** DO NOT use a vortex-type mixer or resuspend the pellet by pipetting.

10. Deposit 1 µL of the final sample preparation onto the designated target slide spot.
11. Allow each spot to dry completely.

**Note:** There is no need to add VITEK<sup>®</sup> MS-CHCA matrix.

12. Run the target slide in the VITEK<sup>®</sup> MS instrument according to the instructions included in the VITEK<sup>®</sup> MS Plus Workflow User Manual or in the VITEK<sup>®</sup> MS Instrument User Manual.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

**IMPORTANT:** *The sample preparation can be stored in a clean tube at refrigerated temperature for up to 1 day.*

*Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

*If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.*

*If all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.*



**CAUTION:** If you are working inside the BSL-3 laboratory and the VITEK® MS instrument is located outside the laboratory, apply a bactericidal disinfectant to an absorbent disposable paper towel and wipe the bottom of the slide before putting it in the transport case and exiting the BSL-3 laboratory.

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## Preparation of *Streptomyces*

### WARNING



Powder-free gloves should be used when handling VITEK<sup>®</sup> MS-DS target slides.

**IMPORTANT:** Do not use loops or cytology brushes that may have come into contact with anything other than the sample strain to be tested.

**Be careful not to pick any agar when picking up the colonies from the agar plate as this may lead to poor identification results.**

**Make sure that only fresh, sterile loops or cytology brushes are used. Discard the loop or cytology brush after each sample preparation.**

**Make sure that only fresh, sterile pipette tips come into contact with the VITEK<sup>®</sup> MS-CHCA matrix and the different reagents. Change the pipette tip after each individual deposit to avoid contamination of the reagents.**

**Note:** The VITEK<sup>®</sup> MS-CHCA matrix and the different reagents contain organic solvents. It is recommended to close all packaging after dispensing to avoid evaporation.

If *Streptomyces* strains are not embedded in the agar, direct deposit is also possible (refer to [Preparation of Bacteria on page 1-2](#)).



1. Prepare fresh reagents as described below. These solvent mixtures must be prepared on the day of use.

The quantities shown below can accommodate approximately 1,000 extractions for formic acid and 20 for ethanol; the formula should be scaled down accordingly.

**To prepare Formic Acid 70%**

- Mix:
  - 3 mL of suspension medium or sterile deionized water
  - 7 mL of formic acid (100% HPLC grade)
- Homogenize.

**To prepare Ethanol 70%**

- Mix:
  - 3 mL of suspension medium or sterile deionized water
  - 7 mL of ethanol (100% HPLC grade)
- Homogenize.

**Acetonitrile (100%):** Acetonitrile (HPLC grade) must be used pure.

2. For each sample to test, transfer 500  $\mu$ L of 70% ethanol to a 2 mL microcentrifuge round-bottomed tube containing approximately 200  $\mu$ L of 0.5 mm glass beads.
3. Use a 1  $\mu$ L loop (one loopful) or a curved cytology brush (in case of an embedded strain) to gently pick up and transfer cells from the medium to the tube and cap securely.

**Note:** *If you do not manage to pick up enough material to fill the loop completely, use the curved cytology brush.*

4. Use a vortex-type mixer with adaptor to disrupt the cells for 15 minutes **or** a bead beater-type homogenizer for 5 minutes (maximum speed).
5. Remove from the mixer or the bead beater-type homogenizer and incubate the tube at room temperature for 10 minutes to complete the inactivation. **Keep the tube upright.**
6. Mix for 5 to 10 seconds using a vortex-type mixer and immediately transfer the suspension into an empty 2 mL round-bottomed tube using a pipette. Avoid transferring any glass beads. Discard the pipette tip.

**Note:** *Before the centrifugation steps, note the position of the expected pellet. This could be helpful in case of a small pellet.*

7. Centrifuge the sample at 10,000 to 14,000 g for 2 minutes to create a pellet.
8. Discard all the supernatant using a pipette.

**Note:** *If liquid remains and cannot be removed with the pipette, the sample can be air dried to allow ethanol to evaporate.*

9. Add 10  $\mu$ L of 70% formic acid to the pellet. Resuspend by aspiration/dispensing using a pipette until the pellet is uniformly dispersed, or directly with a vortex-type mixer.
10. Add 10  $\mu$ L of 100% acetonitrile and mix using a vortex-type mixer.

11. Centrifuge for 2 minutes at 10,000 to 14,000 g to create a pellet.
12. Spot the *E. coli* ATCC® 8739™ control organism and the VITEK® MS-CHCA matrix on the calibration spot prior to spotting the sample preparation.

**IMPORTANT:** *If you spill any E. coli ATCC® 8739™ or VITEK® MS-CHCA matrix on a sample spot, skip that specific spot to avoid cross contamination between calibrator and sample.*

13. For each organism to be tested, immediately transfer 1 µL of the supernatant onto the designated target slide spots.
14. Allow each spot to dry completely.

**Note:** *If the spots are not completely dry before adding the VITEK® MS-CHCA matrix, optimal crystallization of the samples may not be achieved and could potentially interfere with the VITEK® MS results (No Identification).*

15. Add 1 µL of VITEK® MS-CHCA matrix to each target slide spot using a pipette and replacing the pipette tip after each addition of matrix.
16. Allow each spot to dry completely.
17. Run the target slide in the VITEK® MS instrument according to the instructions included in the VITEK® MS Plus Workflow User Manual or in the VITEK® MS Instrument User Manual.

**Note:** *It is possible to deposit samples or sample preparations for all types of microorganisms on the same VITEK® MS-DS target slide.*

**IMPORTANT:** *Once the VITEK® MS-DS target slide is prepared and the matrix is fully dried, it must be tested within 72 hours. Before spectra acquisition, it must be stored at room temperature in its original packaging.*

**If the sample deposit is of optimum quality, acquisition can be performed up to 3 times on the same spot.**

**If all the acquisition groups have not been used, store the VITEK® MS-DS target slide in its original packaging for future use with the unused acquisition groups before the target slide expiry date.**

# 2

## Species included in the SARAMIS<sup>®</sup> Database

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**IMPORTANT:** The VITEK<sup>®</sup> MS Plus / RUO SARAMIS<sup>®</sup> database is for research use only (RUO) and not for use in diagnostic procedures with clinical specimens or mixed cultures.

**Note:** The names of certain organisms may differ to the ones in the IVD version due to recent taxonomy updates.

As species names may change over time, please refer to the official taxonomy for the latest updates.

"Amended in V4.17" in the species table means that spectra and/or super spectra for this taxon have been revised.

To search a species in the **Search** tab of SARAMIS<sup>®</sup> Premium, use the [\*] wildcard character to replace any number of characters, or use \*speciesname\* to search the species name:

For example: Type \*Lichtheimia\* to search Lichtheimia species.

This document lists all species of bacteria, moulds, fungi, yeasts and algae that are available in the VITEK<sup>®</sup> MS Plus / RUO SARAMIS<sup>®</sup> V4.17 database.

The SARAMIS<sup>®</sup> V4.17 database includes the following taxa, spectra and super spectra:

Knowledge Base V4.17	Taxa	Reference Spectra	Super Spectra
<b>Total</b>	2,286	37,043	4,929
<b>Bacteria (including Mycobacteria)</b>	1,766	27,280	3,654
<b>Mycobacteria</b>	89	1,410	121
<b>Yeasts</b>	144	2,683	444
<b>Moulds</b>	374	7,039	828
<b>Algae</b>	2	41	3

## List of Species - Moulds, Fungi, Yeasts and Algae

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Acremonium curvulum</i>	•	
		<i>Acremonium implicatum</i>	•	
		<i>Acremonium murorum</i>	•	•
		<i>Acremonium persicinum</i>	•	•
		<i>Acremonium polychromum</i>	•	•
		<i>Acremonium sclerotigenum</i>	•	•
		<i>Actinomucor elegans</i>	•	•
		<i>Alternaria</i>	•	•
		<i>Alternaria alternata</i>	•	•
		<i>Alternaria infectoria</i>	•	•
		<i>Alternaria tenuissima</i>	•	
		<i>Arthroderma fulvum</i>	•	•
		<i>Arthrographis kalrae</i>	•	•
		<i>Aspergillus</i>	•	•
		<i>Aspergillus aculeatus</i>	•	•
		<i>Aspergillus alabamensis</i>	•	•
		<i>Aspergillus allahabadii</i>	•	•
		<i>Aspergillus arachidicola</i>	•	
		<i>Aspergillus brasiliensis</i>	•	•
		<i>Aspergillus calidoustus</i>	•	
		<i>Aspergillus calidoustus/pseudodeflectus/ustus</i>		•
		<i>Aspergillus candidus</i>	•	•
		<i>Aspergillus carbonarius</i>	•	•
		<i>Aspergillus chevalieri</i> (Synonym: <i>Eurotium chevalieri</i> )	•	•
		<i>Aspergillus creber</i>	•	
		<i>Aspergillus ellipticus</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Aspergillus fennelliae</i>	•	•
		<i>Aspergillus flavipes</i>	•	•
		<i>Aspergillus flavus</i>	•	
		<i>Aspergillus flavus</i> complex (Included: <i>A. arachidicola</i> , <i>A. flavus</i> , <i>A. minisclerotigenes</i> , <i>A. novoparasiticus</i> , <i>A. oryzae</i> , <i>A. parasiticus</i> )		•
		<i>Aspergillus foetidus</i>	•	
		<i>Aspergillus fumigatiaffinis</i>	•	•
		<i>Aspergillus fumigatus</i>	•	•
		<i>Aspergillus fumigatus</i> complex (Included: <i>A. fumigatus</i> , <i>A. thermomutatus</i> )		•
		<i>Aspergillus glaucus</i> (Synonym: <i>Eurotium herbariorum</i> )	•	•
		<i>Aspergillus hiratsukae</i>	•	•
		<i>Aspergillus ibericus</i>	•	
		<i>Aspergillus intermedius</i>	•	•
		<i>Aspergillus japonicus</i>	•	
		<i>Aspergillus lacticoffeatus</i>	•	
		<i>Aspergillus lentulus</i>	•	•
		<i>Aspergillus minisclerotigenes</i>	•	
		<i>Aspergillus montevidensis</i> (Synonym: <i>Eurotium amstelodami</i> )	•	•
		<i>Aspergillus nidulans</i>	•	•
		<i>Aspergillus nidulans</i> complex (Included: <i>A. nidulans</i> , <i>A. versicolor</i> )		•
		<i>Aspergillus niger</i>	•	
		<i>Aspergillus niger</i> complex (Included: <i>A. brasiliensis</i> , <i>A. foetidus</i> , <i>A. lacticoffeatus</i> , <i>A. niger</i> , <i>A. tubingensis</i> )	•	•
		<i>Aspergillus niveus</i>	•	
		<i>Aspergillus novoparasiticus</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Aspergillus ochraceus</i>	•	•
		<i>Aspergillus ochraceus/westerdijkiae</i>		•
		<i>Aspergillus oryzae</i>	•	
		<i>Aspergillus parasiticus</i>	•	•
		<i>Aspergillus penicilloides</i>	•	•
		<i>Aspergillus phoenicis</i>	•	
		<i>Aspergillus proliferans</i>	•	•
		<i>Aspergillus pseudodeflectus</i>	•	
		<i>Aspergillus repens</i>	•	•
		<i>Aspergillus restrictus</i>	•	•
		<i>Aspergillus rubrobrunneus</i>	•	•
		<i>Aspergillus sclerotioniger</i>	•	•
		<i>Aspergillus sydowii</i>	•	•
		<i>Aspergillus tamarii</i>	•	•
		<i>Aspergillus terreus</i> complex (Included: <i>A.terreus</i> )	•	•
		<i>Aspergillus tetrazonus</i>	•	•
		<i>Aspergillus thermomutatus</i> (Synonym: <i>Neosartorya pseudofischeri</i> )	•	•
		<i>Aspergillus tubingensis</i>	•	•
		<i>Aspergillus unguis</i>	•	•
		<i>Aspergillus vadensis</i>	•	
		<i>Aspergillus versicolor</i>	•	•
		<i>Aspergillus wentii</i>	•	•
		<i>Aspergillus westerdijkiae</i>	•	
		<i>Aureobasidium pullulans</i>	•	•
		<i>Aureobasidium pullulans</i> var <i>pullulans</i>	•	•
		<i>Barnettozyma californica</i>	•	
		<i>Beauveria bassiana</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Bipolaris cynodontis</i>	•	•
		<i>Bjerkandera adusta</i>	•	•
		<i>Blastobotrys adenivorans</i>	•	•
		<i>Blastomyces dermatitidis</i>	•	•
		<i>Boeremia exigua</i>	•	
		<i>Botrytis cinerea</i>	•	•
		<i>Brettanomyces anomalus</i>	•	•
		<i>Brettanomyces bruxellensis</i>	•	•
		<i>Brettanomyces naardenensis</i>	•	•
•		<i>Bullera alba</i>	•	•
		<i>Candida</i>		•
		<i>Candida aaseri</i>	•	•
		<i>Candida africana</i>	•	
		<i>Candida africana/albicans</i>		•
		<i>Candida africana/albicans/dublinsiensis</i>		•
		<i>Candida albicans</i>	•	•
		<i>Candida auris</i>	•	•
		<i>Candida blankii</i>	•	•
		<i>Candida boidinii</i>	•	•
		<i>Candida bracarensis</i>	•	•
		<i>Candida cariosilignicola</i>	•	
		<i>Candida catenulata</i>	•	•
		<i>Candida ciferrii</i>	•	•
		<i>Candida colliculosa</i>	•	•
		<i>Candida cylindracea</i>	•	•
		<i>Candida dattila</i>	•	•
		<i>Candida deserticola</i>	•	
		<i>Candida dubliniensis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Candida duobushaemulonii</i>	•	•
		<i>Candida edax</i>	•	
	•	<i>Candida fabianii</i>	•	•
		<i>Candida famata</i>	•	•
		<i>Candida fermentati</i>	•	
		<i>Candida freyschussii</i>	•	•
		<i>Candida glabrata</i>	•	•
		<i>Candida globosa</i>	•	•
		<i>Candida guilliermondii</i>	•	•
		<i>Candida haemulonii</i>	•	•
		<i>Candida hellenica</i>	•	•
		<i>Candida holmii</i>	•	•
		<i>Candida inconspicua</i>	•	•
		<i>Candida intermedia</i>	•	•
		<i>Candida ishiwadae</i>	•	•
		<i>Candida kefyr</i>	•	•
		<i>Candida krusei</i>	•	•
		<i>Candida lambica</i>	•	•
		<i>Candida lipolytica</i>	•	•
		<i>Candida lusitaniae</i>	•	•
		<i>Candida magnoliae</i>	•	•
		<i>Candida melibiosica</i>	•	•
		<i>Candida membranifaciens</i>	•	•
		<i>Candida metapsilosis</i>	•	•
		<i>Candida nivariensis</i>	•	•
		<i>Candida norvegensis</i>	•	•
		<i>Candida norvegica</i>	•	•
		<i>Candida orthopsilosis</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Candida palmioleophila</i>	•	•
		<i>Candida parapsilosis</i>	•	•
		<i>Candida pararugosa</i>	•	•
		<i>Candida pelliculosa</i>	•	•
		<i>Candida pseudoglebosa</i>	•	•
		<i>Candida pulcherrima</i>	•	•
		<i>Candida quercitrusa</i>	•	•
		<i>Candida rugosa</i>	•	•
		<i>Candida sake</i>	•	•
		<i>Candida silvicola</i>	•	•
		<i>Candida slooffiae</i>	•	•
		<i>Candida sorbosa</i>	•	•
		<i>Candida sphaerica</i>	•	•
		<i>Candida steatolytica</i>	•	
		<i>Candida thermophila</i>	•	•
		<i>Candida tropicalis</i>	•	•
		<i>Candida utilis</i>	•	•
		<i>Candida valida</i>	•	•
		<i>Candida variabilis</i>	•	•
		<i>Candida viswanathii</i>	•	•
		<i>Candida zeylanoides</i>	•	•
		<i>Cephalophora irregularis</i>	•	•
		<i>Cephalotheca foveolata</i>	•	•
		<i>Cephalotheca purpurea</i>	•	•
		<i>Chaetomium</i>	•	•
		<i>Chaetomium globosum</i>	•	•
		<i>Chrysonilia sitophila</i>	•	•
		<i>Chrysosporium</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Chrysosporium indicum</i>	•	•
		<i>Chrysosporium keratinophilum</i>	•	
		<i>Chrysosporium tuberculatum</i>	•	
		<i>Cladophialophora bantiana</i>	•	•
		<i>Cladophialophora mycetomatis</i>	•	•
		<i>Cladosporium</i>	•	•
		<i>Cladosporium cladosporioides</i>	•	•
		<i>Cladosporium dominicanum</i>	•	•
		<i>Cladosporium fusiforme</i>	•	•
		<i>Cladosporium halotolerans</i>	•	•
		<i>Cladosporium herbarum</i>	•	
		<i>Cladosporium herbarum/macrocarpum</i>		•
		<i>Cladosporium inversicolor</i>	•	•
		<i>Cladosporium langeronii</i>	•	•
		<i>Cladosporium macrocarpum</i>	•	
		<i>Cladosporium oxysporum</i>	•	•
		<i>Cladosporium psychrotolerans</i>	•	•
		<i>Cladosporium ramotenellum</i>	•	•
		<i>Cladosporium sphaerospermum</i>	•	•
		<i>Cladosporium velox</i>	•	•
		<i>Coccidioides</i>		•
		<i>Coccidioides immitis</i>	•	
		<i>Coccidioides posadasii</i>	•	•
		<i>Colletotrichum gloeosporioides</i>	•	
		<i>Coprinellus radians</i>	•	•
		<i>Corioloopsis polyzona</i>	•	•
		<i>Cryptococcus albidus</i>	•	•
		<i>Cryptococcus aureus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Cryptococcus curvatus</i>	•	•
		<i>Cryptococcus gattii</i>	•	•
		<i>Cryptococcus humicola</i>	•	
		<i>Cryptococcus laurentii</i>	•	•
		<i>Cryptococcus magnus</i>	•	
		<i>Cryptococcus neoformans</i>	•	•
		<i>Cryptococcus terreus</i>	•	•
		<i>Cryptococcus uniguttulatus</i>	•	•
		<i>Cunninghamella bertholletiae</i>	•	•
		<i>Cunninghamella elegans</i>	•	•
		<i>Curvularia hawaiiensis</i>	•	•
		<i>Curvularia lunata</i>	•	•
		<i>Curvularia spicifera</i>	•	•
		<i>Cyberlindnera rhodanensis</i>	•	
		<i>Cyberlindnera saturnus</i>	•	•
		<i>Cyphellophora europaea</i>	•	
		<i>Debaryomyces</i>	•	•
		<i>Diatrype stigma</i>	•	•
		<i>Duddingtonia flagrans</i>	•	•
		<i>Epicoccum nigrum</i>	•	
		<i>Epidermophyton floccosum</i>	•	•
		<i>Eutypella scoparia</i>	•	•
		<i>Exophiala</i>	•	•
		<i>Exophiala aquamarina</i>	•	
		<i>Exophiala dermatitidis</i>	•	•
		<i>Exophiala jeanselmei</i>	•	
		<i>Exophiala lecanii-corni</i>	•	
		<i>Exophiala phaeomuriformis</i> complex	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Exophiala spinifera</i>	•	•
		<i>Exophiala xenobiotica</i>	•	•
		<i>Exserohilum rostratum</i>	•	•
		<i>Fonsecaea monophora</i>	•	•
		<i>Fusarium</i>	•	•
		<i>Fusarium acuminatum</i>	•	
		<i>Fusarium arthrosporioides</i>	•	
		<i>Fusarium avenaceum</i>	•	
		<i>Fusarium cerealis</i>	•	
		<i>Fusarium cerealis/culmorum/graminearum</i>		•
		<i>Fusarium chlamydosporum</i>	•	•
		<i>Fusarium culmorum</i>	•	
		<i>Fusarium dimerum</i>	•	•
		<i>Fusarium domesticum</i>	•	•
		<i>Fusarium equiseti</i>	•	
		<i>Fusarium equiseti/incarnatum</i>		•
		<i>Fusarium fujikuroi</i> complex (Included: <i>F. subglutinans</i> , <i>F. temperatum</i> , <i>F. verticillioides</i> )		•
		<i>Fusarium graminearum</i>	•	
		<i>Fusarium incarnatum</i>	•	
		<i>Fusarium langsethiae</i>	•	
		<i>Fusarium langsethiae/sporotrichoides</i>		•
		<i>Fusarium lateritium</i>	•	•
		<i>Fusarium nygamai</i>	•	
	•	<i>Fusarium oxysporum</i>	•	•
		<i>Fusarium oxysporum</i> fsp <i>aechmeae</i>	•	
		<i>Fusarium oxysporum</i> fsp <i>cyclaminis</i>	•	
•		<i>Fusarium oxysporum</i> fsp <i>lycopersici</i>	•	
•		<i>Fusarium oxysporum</i> fsp <i>radicis-lupini</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Fusarium oxysporum/proliferatum</i>		•
		<i>Fusarium poae</i>	•	•
		<i>Fusarium proliferatum</i>	•	•
		<i>Fusarium proliferatum</i> var <i>minus</i>	•	
		<i>Fusarium sambucinum</i>	•	•
		<i>Fusarium scirpi</i>	•	•
		<i>Fusarium solani</i>	•	•
		<i>Fusarium sporotrichioides</i>	•	
		<i>Fusarium subglutinans</i>	•	
		<i>Fusarium temperatum</i>	•	
		<i>Fusarium thapsinum</i>	•	•
		<i>Fusarium tricinctum</i>	•	
		<i>Fusarium tricinctum</i> complex (Included: <i>F. acuminatum</i> , <i>F. arthrosporioides</i> , <i>F. avenaceum</i> , <i>F. tricinctum</i> )		•
		<i>Fusarium venenatum</i>	•	•
		<i>Fusarium verticillioides</i>	•	•
•		<i>Geosmithia swiftii</i>	•	•
		<i>Geotrichum</i>	•	•
		<i>Geotrichum candidum</i>	•	
		<i>Geotrichum candidum/lebahnii</i>		•
		<i>Geotrichum fermentans</i>	•	•
		<i>Geotrichum klebahnii</i>	•	
		<i>Gliocladium</i>	•	
		<i>Histoplasma capsulatum</i>	•	•
		<i>Hypocrea</i>	•	
		<i>Irpex lacteus</i>	•	•
		<i>Kloeckera</i>		•
		<i>Kloeckera apiculata</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Kloeckera apis</i>	•	•
		<i>Kloeckera japonica</i>	•	•
		<i>Knufia</i>	•	
		<i>Kodamaea ohmeri</i>	•	•
		<i>Komagataella pastoris</i>	•	•
		<i>Lachancea fermentati</i>	•	•
		<i>Lachancea kluyveri</i>	•	•
•		<i>Lasiodiplodia theobromae</i>	•	•
		<i>Lecanicillium</i>	•	•
		<i>Lecythophora fasciculata</i>	•	•
		<i>Lecythophora hoffmannii</i>	•	•
		<i>Lecythophora lignicola</i>	•	
		<i>Lecythophora mutabilis</i>	•	•
•		<i>Leptosphaerulina chartarum</i>	•	•
		<i>Lichtheimia corymbifera</i>	•	•
		<i>Lodderomyces elongisporus</i>	•	•
•		<i>Macrophomina phaesolina</i>	•	•
		<i>Malassezia furfur</i>	•	
		<i>Malassezia globosa</i>	•	•
		<i>Malassezia pachydermatis</i>	•	
		<i>Metarhizium anisopliae</i>	•	•
	•	<i>Microascaceae</i>		•
•		<i>Microdochium</i>		•
•		<i>Microdochium majus</i>	•	
•		<i>Microdochium nivale</i>	•	
		<i>Microsporum</i>	•	•
		<i>Microsporum audouinii</i>	•	•
		<i>Microsporum canis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Microsporium cookei</i>	•	•
		<i>Microsporium ferrugineum</i>	•	•
		<i>Microsporium fulvum</i>	•	•
		<i>Microsporium gallinae</i>	•	
		<i>Microsporium gypseum</i>	•	•
		<i>Microsporium persicolor</i>	•	•
		<i>Microsporium praecox</i>	•	•
		<i>Microsporium racemosum</i>	•	•
		<i>Millerozyma farinosa</i>	•	•
		<i>Monascus pilosus/ruber</i>	•	
		<i>Monascus purpureus</i>	•	•
		<i>Mucor</i>		•
		<i>Mucor circinelloides</i>	•	•
		<i>Mucor circinelloides ssp circinelloides</i>	•	
		<i>Mucor fragilis</i>	•	•
		<i>Mucor hiemalis</i>	•	•
		<i>Mucor irregularis</i>	•	•
		<i>Mucor lanceolatus</i>	•	•
		<i>Mucor plumbeus</i>	•	•
	•	<i>Mucor racemosus</i>	•	•
•		<i>Mucor racemosus fsp racemosus</i>	•	
		<i>Mucor velutinosus</i>	•	•
		<i>Mycoleptodiscus indicus</i>	•	•
		<i>Mycotypha microspora</i>	•	•
		<i>Myriodontium keratinophilum</i>	•	
		<i>Myrmecridium schulzeri</i>	•	•
		<i>Myrothecium</i>	•	•
•		<i>Naganishia diffluens</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Neosartorya fischeri</i>	•	•
		<i>Neoscytalidium dimidiatum</i>	•	
		<i>Nigrospora</i>	•	
		<i>Nodulisporium</i>	•	
		<i>Ochroconis humicola</i>	•	•
		<i>Oxyporus corticola</i>	•	•
•		<i>Paecilomyces brunneolus</i>	•	•
•		<i>Paecilomyces divaricatus</i>	•	•
	•	<i>Paecilomyces formosus</i>	•	•
	•	<i>Paecilomyces fulvus</i>	•	•
		<i>Paecilomyces fulvus/niveus</i>		•
	•	<i>Paecilomyces niveus</i>	•	•
•		<i>Paecilomyces saturatus</i>	•	•
	•	<i>Paecilomyces variotii</i>	•	•
		<i>Paracoccidioides brasiliensis</i>	•	
		<i>Penicillium</i>	•	•
		<i>Penicillium aculeatum</i>	•	
		<i>Penicillium adametzioides</i>	•	•
		<i>Penicillium antarcticum</i>	•	•
		<i>Penicillium aurantiacum</i>	•	•
		<i>Penicillium aurantiogriseum</i>	•	•
		<i>Penicillium aurantiogriseum var polonicum</i>	•	
		<i>Penicillium bialowiezense</i>	•	•
		<i>Penicillium brevicompactum</i>	•	•
		<i>Penicillium camemberti</i>	•	•
		<i>Penicillium capsulatum</i>	•	
		<i>Penicillium carneum</i>	•	•
		<i>Penicillium chermesinum</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Penicillium chrysogenum</i>	•	•
		<i>Penicillium cinnamopurpureum</i>	•	
		<i>Penicillium citreonigrum</i>	•	•
		<i>Penicillium citrinum</i>	•	•
		<i>Penicillium commune</i>	•	
		<i>Penicillium corylophilum</i>	•	•
		<i>Penicillium crustosum</i>	•	•
		<i>Penicillium decumbens</i>	•	•
		<i>Penicillium dierckxii</i>	•	•
		<i>Penicillium digitatum</i>	•	•
		<i>Penicillium discolor</i>	•	•
		<i>Penicillium expansum</i>	•	•
		<i>Penicillium funiculosum</i>	•	•
		<i>Penicillium fuscoglaucum</i>	•	
		<i>Penicillium glabrum</i>	•	•
		<i>Penicillium griseofulvum</i>	•	•
		<i>Penicillium italicum</i>	•	•
		<i>Penicillium janthinellum</i>	•	•
•		<i>Penicillium macrosporum</i>	•	•
		<i>Penicillium marneffeii</i>	•	
		<i>Penicillium nalgiovense</i>	•	•
		<i>Penicillium nordicum</i>	•	
		<i>Penicillium oxalicum</i>	•	•
		<i>Penicillium palitans</i>	•	
		<i>Penicillium paneum</i>	•	•
		<i>Penicillium pinophilum</i>	•	
		<i>Penicillium purpurogenum</i>	•	•
		<i>Penicillium resedanum</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Penicillium roqueforti</i>	•	•
		<i>Penicillium rugulosum</i>	•	•
		<i>Penicillium salamii</i>	•	•
		<i>Penicillium simplicissimum</i>	•	•
		<i>Penicillium solitum</i>	•	•
		<i>Penicillium sumatraense</i>	•	
		<i>Penicillium toxicarium</i>	•	•
		<i>Penicillium vermiculatum</i>	•	•
		<i>Penicillium verrucosum</i>	•	
		<i>Penicillium viridicatum</i>	•	•
		<i>Peniophora</i>	•	•
•		<i>Peyronellaea pinodella</i>	•	•
		<i>Peyronellaea pomorum</i> (Synonym: <i>Phoma pomorum</i> )	•	•
		<i>Phaeoacremonium fuscum</i>	•	•
		<i>Phaeoacremonium venezuelense</i>	•	•
		<i>Phanerochaete</i>	•	
		<i>Phellinus</i>	•	
		<i>Phialemonium obovatum</i>	•	•
		<i>Phialophora americana</i>	•	
		<i>Phialophora richardsiae</i>	•	•
		<i>Phlebia</i>	•	•
		<i>Phlebia brevispora</i>	•	•
	•	<i>Phoma glomerata</i>	•	•
		<i>Phoma herbarum</i>	•	•
		<i>Phoma sorghina</i>	•	•
		<i>Pichia</i>		•
		<i>Pichia cactophila</i>	•	•
		<i>Pleosporaceae</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Priceomyces carsonii</i>	•	•
		<i>Prototheca wickerhamii</i>	•	•
		<i>Prototheca zopfii</i>	•	•
		<i>Pseudallescheria boydii</i>	•	•
•		<i>Pseudallescheria ellipsoidea</i>	•	•
	•	<i>Pseudallescheria minutispora</i>	•	•
		<i>Purpureocillium lilacinum</i>	•	•
		<i>Pyrenochaeta corni</i>	•	•
		<i>Pythium aphanidermatum</i>	•	
		<i>Rasamsonia argillacea</i>	•	•
		<i>Rhizomucor miehei</i>	•	
		<i>Rhizomucor pusillus</i>	•	•
		<i>Rhizopus</i>	•	•
		<i>Rhizopus arrhizus</i> (Synonym: <i>Rhizopus oryzae</i> )	•	•
	•	<i>Rhizopus microsporus</i>	•	•
•		<i>Rhizopus microsporus</i> var <i>chinensis</i>	•	
•		<i>Rhizopus microsporus</i> var <i>oligosporus</i>	•	
•		<i>Rhizopus microsporus</i> var <i>rhizopodiformis</i>	•	
		<i>Rhizopus schipperae</i>	•	•
		<i>Rhizopus stolonifer</i>	•	•
		<i>Rhodotorula</i>	•	•
		<i>Rhodotorula glutinis</i>	•	•
		<i>Rhodotorula graminis</i>	•	
		<i>Rhodotorula minuta</i>	•	•
		<i>Rhodotorula mucilaginosa</i>	•	•
		<i>Saccharomyces cerevisiae</i>	•	•
		<i>Saccharomyces pastorianus</i>	•	
		<i>Sagenomella oligospora</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Saksenaea</i>	•	•
		<i>Saksenaea erythrospora</i>	•	•
		<i>Saksenaea vasiformis</i>	•	
		<i>Saprochaete capitata</i> (Synonym: <i>Geotrichum capitatum</i> )	•	•
		<i>Saprochaete clavata</i> (Synonym: <i>Geotrichum clavatum</i> )	•	•
		<i>Sarocladium kiliense</i>	•	•
		<i>Sarocladium zeae</i>	•	
		<i>Scedosporium</i>	•	
		<i>Scedosporium apiospermum</i>	•	•
•		<i>Scedosporium aurantiacum</i>	•	•
•		<i>Scedosporium dehoogii</i>	•	•
		<i>Scedosporium prolificans</i>	•	•
		<i>Schizophyllum commune</i>	•	•
		<i>Schwanniomyces etchellsii</i>	•	•
		<i>Schwanniomyces polymorphus</i>	•	•
		<i>Scopulariopsis</i>		•
•		<i>Scopulariopsis asperula</i>	•	•
	•	<i>Scopulariopsis brevicaulis</i>	•	•
		<i>Scopulariopsis cinerea</i>	•	•
		<i>Simplicillium</i>	•	
		<i>Sporobolomyces salmonicolor</i>	•	•
•		<i>Sporothrix mexicana</i>	•	•
	•	<i>Sporothrix pallida</i>	•	•
		<i>Sporothrix schenckii</i>	•	•
•		<i>Sporothrix schenckii</i> var <i>lurieii</i>	•	
		<i>Sporothrix variecibatus</i>	•	
		<i>Stachybotrys chartarum</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Stachybotrys chlorohalonata</i>	•	
		<i>Syncephalastrum racemosum</i>	•	•
		<i>Trametes lactinea</i>	•	•
		<i>Trichoderma</i>	•	•
		<i>Trichoderma asperellum</i>		•
		<i>Trichoderma brevicompactum</i>	•	•
		<i>Trichoderma ghanense</i>	•	•
		<i>Trichoderma harzianum</i>	•	•
		<i>Trichoderma longibrachiatum</i>	•	•
		<i>Trichoderma reesei</i>	•	•
		<i>Trichoderma viride</i>	•	
		<i>Trichomonascus farinosus</i>	•	
		<i>Trichophyton</i>	•	•
		<i>Trichophyton ajelloi</i>	•	
		<i>Trichophyton balcaneum</i>	•	
		<i>Trichophyton benhamiae</i> (Synonym: <i>Arthroderma benhamiae</i> )	•	•
		<i>Trichophyton concentricum</i>	•	
		<i>Trichophyton eboreum</i>	•	•
		<i>Trichophyton equinum</i>	•	•
		<i>Trichophyton erinacei</i>	•	•
		<i>Trichophyton interdigitale</i>	•	•
		<i>Trichophyton mentagrophytes</i>	•	•
		<i>Trichophyton rubrum</i>	•	•
		<i>Trichophyton rubrum african</i>	•	
		<i>Trichophyton rubrum var raubitschekii</i>	•	
		<i>Trichophyton schoenleinii</i>	•	•
		<i>Trichophyton terrestre</i>	•	•
		<i>Trichophyton thuringiense</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Trichophyton tonsurans</i>	•	•
		<i>Trichophyton verrucosum</i>	•	•
		<i>Trichophyton verrucosum</i> var <i>ochraceum</i>	•	
		<i>Trichophyton violaceum</i>	•	•
		<i>Trichosporon</i>	•	•
		<i>Trichosporon asahii</i>	•	•
		<i>Trichosporon asteroides</i>	•	•
		<i>Trichosporon coremiiforme</i>	•	
		<i>Trichosporon cutaneum</i>	•	•
		<i>Trichosporon debeurmannianum</i>	•	
		<i>Trichosporon dermatis</i>	•	
		<i>Trichosporon dermatis/mucooides</i>	•	•
		<i>Trichosporon domesticum</i>	•	•
		<i>Trichosporon inkin</i>	•	•
		<i>Trichosporon loubieri</i>	•	•
		<i>Trichosporon mucooides</i>	•	•
		<i>Trichosporon ovoides</i>	•	•
		<i>Trichothecium roseum</i>	•	•
		<i>Umbelopsis isabellina</i>	•	•
		<i>Verticillium leptobactrum</i>	•	•
		<i>Wallemia sebi</i>	•	•
		<i>Xenoacremonium recifei</i>	•	•
		<i>Zygosaccharomyces</i>	•	•
		<i>Zygosaccharomyces bailii</i>	•	•
		<i>Zygosaccharomyces bisporus</i>	•	•
		<i>Zygosaccharomyces rouxii</i>	•	•

## List of Species - Bacteria

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Abiotrophia defectiva</i>	•	•
	•	<i>Acetobacter aceti</i>	•	•
•		<i>Acetobacter pasteurianus</i>	•	•
•		<i>Acetobacter peroxydans</i>	•	•
	•	<i>Achromobacter</i>	•	•
•		<i>Achromobacter aegrifaciens</i>	•	•
•		<i>Achromobacter deleyi</i>	•	•
	•	<i>Achromobacter denitrificans</i>	•	•
		<i>Achromobacter denitrificans/xylosoxidans</i>	•	•
	•	<i>Achromobacter insolitus</i>	•	•
		<i>Achromobacter insolitus/piechaudii</i>		•
	•	<i>Achromobacter marplatensis</i>	•	•
	•	<i>Achromobacter piechaudii</i>	•	•
		<i>Achromobacter piechaudii/spanius</i>	•	•
		<i>Achromobacter ruhlandii</i>	•	
	•	<i>Achromobacter spanius</i>	•	•
	•	<i>Achromobacter xylosoxidans</i>	•	•
•		<i>Acidaminococcus intestini</i>	•	•
		<i>Acidipropionibacterium acidipropionici</i>	•	•
	•	<i>Acidipropionibacterium jensenii</i>	•	•
•		<i>Acidipropionibacterium thoenii</i>	•	
		<i>Acidovorax</i>		•
•		<i>Acidovorax delafieldii</i>	•	•
•		<i>Acidovorax soli</i>	•	•
		<i>Acidovorax temperans</i>	•	•
		<i>Acinetobacter</i>	•	•
		<i>Acinetobacter baumannii</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Acinetobacter beijerinckii</i>	•	•
	•	<i>Acinetobacter bereziniae</i>	•	•
		<i>Acinetobacter calcoaceticus</i>	•	•
	•	<i>Acinetobacter courvalinii</i>	•	•
	•	<i>Acinetobacter guillouiae</i>	•	•
		<i>Acinetobacter gyllenbergii</i>	•	•
		<i>Acinetobacter haemolyticus</i>	•	•
		<i>Acinetobacter johnsonii</i>	•	•
		<i>Acinetobacter junii</i>	•	•
		<i>Acinetobacter lwoffii</i>	•	•
		<i>Acinetobacter nosocomialis</i>	•	•
		<i>Acinetobacter pittii</i>	•	•
		<i>Acinetobacter radioresistens</i>	•	•
	•	<i>Acinetobacter schindleri</i>	•	•
		<i>Acinetobacter seifertii</i>	•	•
		<i>Acinetobacter ursingii</i>	•	•
		<i>Acinetobacter variabilis</i>	•	
		<i>Actinobacillus</i>		•
		<i>Actinobacillus anseriformium</i>		•
		<i>Actinobacillus arthritidis</i>	•	
		<i>Actinobacillus capsulatus</i>	•	•
		<i>Actinobacillus equuli</i>	•	
		<i>Actinobacillus equuli ssp haemolyticus</i>	•	•
		<i>Actinobacillus lignieresii</i>	•	
		<i>Actinobacillus lignieresii/pleuropneumoniae</i>		•
		<i>Actinobacillus minor</i>		•
		<i>Actinobacillus pleuropneumoniae</i>	•	•
		<i>Actinobacillus rossii</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Actinobacillus seminis</i>	•	•
		<i>Actinobacillus suis</i>	•	
		<i>Actinobacillus ureae</i>	•	•
		<i>Actinobaculum suis</i>	•	•
•		<i>Actinomadura latina</i>	•	•
•		<i>Actinomadura nitritigenes</i>	•	•
		<i>Actinomyces</i>	•	•
		<i>Actinomyces bovis</i>	•	•
		<i>Actinomyces denticolens</i>	•	•
		<i>Actinomyces gerencseriae</i>	•	•
		<i>Actinomyces graevenitzii</i>	•	•
		<i>Actinomyces israelii</i>	•	•
		<i>Actinomyces naeslundii</i>	•	•
		<i>Actinomyces oris</i>	•	•
		<i>Actinomyces urogenitalis</i>	•	•
		<i>Actinomyces viscosus</i>	•	•
		<i>Actinotignum schaalii</i>	•	•
		<i>Advenella incenata</i>	•	
		<i>Aeribacillus pallidus</i>	•	•
		<i>Aerococcus</i>	•	
•		<i>Aerococcus christensenii</i>	•	•
		<i>Aerococcus sanguinicola</i>	•	•
		<i>Aerococcus urinae</i>	•	•
		<i>Aerococcus viridans</i>	•	•
	•	<i>Aeromonas</i>	•	•
		<i>Aeromonas bestiarum</i>	•	•
	•	<i>Aeromonas dhakensis</i>	•	•
	•	<i>Aeromonas encheleia</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Aeromonas enteropelogenes</i>	•	•
	•	<i>Aeromonas eucrenophila</i>	•	•
		<i>Aeromonas hydrophila</i>	•	•
		<i>Aeromonas hydrophila</i> ssp <i>hydrophila</i>	•	
		<i>Aeromonas jandaei</i>	•	•
		<i>Aeromonas media</i>	•	•
		<i>Aeromonas molluscorum</i>		•
	•	<i>Aeromonas popoffii</i>	•	•
		<i>Aeromonas punctata (caviae)</i>	•	•
		<i>Aeromonas rivuli</i>	•	•
		<i>Aeromonas salmonicida</i>	•	•
		<i>Aeromonas salmonicida</i> ssp <i>masoucida</i>	•	
		<i>Aeromonas salmonicida</i> ssp <i>salmonicida</i>	•	
		<i>Aeromonas schubertii</i>	•	•
		<i>Aeromonas simiae</i>		•
		<i>Aeromonas sobria</i>	•	•
		<i>Aeromonas tecta</i>	•	•
		<i>Aeromonas veronii</i>	•	•
•		<i>Afipia broomeae</i>	•	•
		<i>Aggregatibacter</i>	•	•
		<i>Aggregatibacter actinomycetemcomitans</i>	•	•
		<i>Aggregatibacter aphrophilus</i>	•	•
		<i>Aggregatibacter segnis</i>	•	•
•		<i>Agrococcus</i>		•
•		<i>Agrococcus citreus</i>	•	•
•		<i>Agrococcus jenensis</i>	•	•
•		<i>Agromyces mediolanus</i>	•	•
		<i>Alcaligenaceae</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Alcaligenes</i>	•	•
		<i>Alcaligenes faecalis</i>	•	•
		<i>Alcaligenes faecalis</i> ssp <i>faecalis</i>	•	
		<i>Aliarcobacter butzleri</i>	•	•
		<i>Aliarcobacter cryaerophilus</i>	•	•
		<i>Alicyclobacillus acidocaldarius</i>	•	•
		<i>Alicyclobacillus acidoterrestris</i>	•	•
	•	<i>Alistipes</i>		•
•		<i>Alistipes finegoldii</i>	•	•
•		<i>Alistipes onderdonkii</i>	•	•
		<i>Alistipes putredinis</i>		•
•		<i>Alkalihalobacillus alcalophilus</i> (Synonym: <i>Bacillus alcalophilus</i> )	•	•
		<i>Alkalihalobacillus clausii</i> (Synonym: <i>Bacillus clausii</i> )	•	•
		<i>Alkalihalobacillus pseudofirmus</i>	•	
		<i>Alloiococcus otitis</i>	•	
•		<i>Alloscardovia omnicolens</i>	•	•
		<i>Aminobacter</i>	•	
		<i>Anaerobiospirillum succiniciproducens</i>	•	•
	•	<i>Anaerococcus</i>	•	•
		<i>Anaerococcus hydrogenalis</i>	•	•
	•	<i>Anaerococcus lactolyticus</i>	•	•
		<i>Anaerococcus lactolyticus/murdochii</i>	•	•
	•	<i>Anaerococcus murdochii</i>	•	•
•		<i>Anaerococcus octavius</i>	•	•
		<i>Anaerococcus prevotii</i>	•	•
	•	<i>Anaerococcus tetradius</i>	•	•
		<i>Anaerococcus vaginalis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Aneurinibacillus</i>		•
		<i>Aneurinibacillus aneurinilyticus</i>	•	•
		<i>Aneurinibacillus migulanus</i>	•	
		<i>Aneurinibacillus thermoaerophilus</i>	•	•
		<i>Anoxybacillus flavithermus</i>	•	•
		<i>Arcanobacterium</i>	•	•
		<i>Arcanobacterium haemolyticum</i>	•	•
		<i>Arcanobacterium hippocoleae</i>	•	
		<i>Arthrobacter</i>	•	•
		<i>Arthrobacter agilis</i>	•	•
		<i>Arthrobacter castelli</i>	•	
		<i>Arthrobacter citreus</i>	•	
		<i>Arthrobacter crystallopoietes</i>	•	
		<i>Arthrobacter flavus</i>	•	•
	•	<i>Arthrobacter gandavensis</i>	•	•
		<i>Arthrobacter globiformis</i>	•	•
		<i>Arthrobacter luteolus</i>	•	
		<i>Arthrobacter methylotrophus</i>	•	
		<i>Arthrobacter monumenti</i>	•	
		<i>Arthrobacter parietis</i>	•	
		<i>Arthrobacter pascens</i>	•	
		<i>Arthrobacter pigmenti</i>	•	
		<i>Arthrobacter psychrolactophilus</i>	•	
		<i>Arthrobacter ramosus</i>	•	
		<i>Arthrobacter rhombi</i>	•	
		<i>Arthrobacter roseus</i>	•	
		<i>Arthrobacter russicus</i>	•	•
		<i>Arthrobacter stackebrandtii</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Arthrobacter tecti</i>	•	
		<i>Arthrobacter tumbae</i>	•	
		<i>Arthrobacter woluwensis</i>	•	
•		<i>Atopobium minutum</i>	•	•
		<i>Avibacterium gallinarum</i>	•	•
		<i>Bacillus</i>	•	•
		<i>Bacillus altitudinis</i>	•	•
	•	<i>Bacillus amyloliquefaciens</i>	•	•
		<i>Bacillus amyloliquefaciens/megaterium/coagulans</i>		•
		<i>Bacillus anthracis</i>	•	•
		<i>Bacillus atrophaeus</i>	•	
		<i>Bacillus atrophaeus/subtilis</i>		•
		<i>Bacillus badius</i>	•	
		<i>Bacillus beringensis</i>	•	
•		<i>Bacillus canaveralius</i>	•	•
	•	<i>Bacillus cereus</i>	•	•
	•	<i>Bacillus cereus</i> group (Included: <i>B. anthracis</i> , <i>B. cereus</i> , <i>B. cytotoxicus</i> , <i>B. mycoides</i> , <i>B. thuringiensis</i> )	•	•
		<i>Bacillus circulans</i>	•	•
		<i>Bacillus coagulans</i>	•	•
		<i>Bacillus coagulans/megaterium</i>		•
	•	<i>Bacillus cytotoxicus</i>	•	•
		<i>Bacillus endophyticus</i>	•	
•		<i>Bacillus farraginis</i>	•	•
•		<i>Bacillus flexus</i>	•	•
		<i>Bacillus fordii</i>	•	
		<i>Bacillus fordii/fortis</i>		•
	•	<i>Bacillus fortis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Bacillus galactosidilyticus</i>	•	•
	•	<i>Bacillus gibsonii</i>	•	•
		<i>Bacillus ginsengihumi</i>	•	
		<i>Bacillus idriensis</i>	•	•
		<i>Bacillus infantis</i>	•	
	•	<i>Bacillus lentus</i>	•	•
		<i>Bacillus licheniformis</i>	•	•
		<i>Bacillus megaterium</i>	•	•
	•	<i>Bacillus mycoides</i>	•	•
	•	<i>Bacillus oleronius</i>	•	•
	•	<i>Bacillus pseudomycooides</i>	•	
		<i>Bacillus pumilus</i>	•	•
•		<i>Bacillus ruris</i>	•	•
•		<i>Bacillus safensis</i>	•	•
		<i>Bacillus smithii</i>	•	•
		<i>Bacillus sporothermodurans</i>	•	•
		<i>Bacillus subtilis</i>	•	•
		<i>Bacillus thermoamylovorans</i>	•	•
	•	<i>Bacillus thuringiensis</i>	•	
•		<i>Bacillus vallismortis</i>	•	
•		<i>Bacillus velezensis</i>	•	•
	•	<i>Bacillus weihenstephanensis</i>	•	•
		<i>Bacteroidaceae</i>		•
		<i>Bacteroides</i>	•	•
		<i>Bacteroides acidifaciens</i>	•	
		<i>Bacteroides caccae</i>	•	•
		<i>Bacteroides cellulosilyticus</i>	•	•
		<i>Bacteroides coprosuis</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Bacteroides eggerthii</i>	•	•
		<i>Bacteroides fingoldii/nordii/salyersiae</i>		•
		<i>Bacteroides fragilis</i>	•	•
		<i>Bacteroides gallinarum</i>	•	
		<i>Bacteroides helcogenes</i>	•	
		<i>Bacteroides intestinalis</i>	•	
		<i>Bacteroides nordii</i>	•	
		<i>Bacteroides ovatus</i>	•	
		<i>Bacteroides ovatus/xylanisolvans</i>		•
		<i>Bacteroides pyogenes</i>	•	•
		<i>Bacteroides salyersiae</i>	•	
		<i>Bacteroides stercoris</i>	•	•
		<i>Bacteroides thetaiotaomicron</i>	•	•
		<i>Bacteroides uniformis</i>	•	•
		<i>Bacteroides xylanisolvans</i>	•	
		<i>Bergeyella</i>		•
		<i>Bergeyella zoohelcum</i>	•	
		<i>Bifidobacterium</i>	•	•
		<i>Bifidobacterium adolescentis</i>	•	
		<i>Bifidobacterium adolescentis/dentium</i>		•
		<i>Bifidobacterium angulatum</i>	•	
	•	<i>Bifidobacterium animalis</i>	•	•
	•	<i>Bifidobacterium animalis ssp animalis</i>	•	
		<i>Bifidobacterium animalis ssp lactis</i>	•	
		<i>Bifidobacterium asteroides</i>	•	
		<i>Bifidobacterium bifidum</i>	•	•
		<i>Bifidobacterium boum</i>	•	
		<i>Bifidobacterium breve</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Bifidobacterium catenulatum</i>	•	
		<i>Bifidobacterium catenulatum/pseudocatenulatum</i>		•
		<i>Bifidobacterium choerinum</i>	•	
		<i>Bifidobacterium cuniculi</i>	•	
		<i>Bifidobacterium dentium</i>	•	•
		<i>Bifidobacterium gallicum</i>	•	
		<i>Bifidobacterium indicum</i>	•	
		<i>Bifidobacterium longum</i>	•	•
		<i>Bifidobacterium magnum</i>	•	
		<i>Bifidobacterium merycicum</i>	•	•
		<i>Bifidobacterium minimum</i>	•	
		<i>Bifidobacterium porcinum</i>	•	
		<i>Bifidobacterium pseudocatenulatum</i>	•	
		<i>Bifidobacterium pseudolongum ssp globosum</i>	•	
		<i>Bifidobacterium pseudolongum ssp pseudolongum</i>	•	
		<i>Bifidobacterium pullorum</i>	•	•
		<i>Bifidobacterium pullorum ssp gallinarum</i>	•	
		<i>Bifidobacterium ruminantium</i>	•	•
		<i>Bifidobacterium saeculare</i>	•	
	•	<i>Bifidobacterium scardovii</i>	•	•
		<i>Bifidobacterium thermacidophilum</i>	•	•
		<i>Bifidobacterium thermophilum</i>	•	
		<i>Bilophila</i>	•	
	•	<i>Bilophila wadsworthia</i>	•	•
		Bisgaard Taxa Bisgaard Taxon 14		•
		Bisgaard Taxa Bisgaard Taxon 16		•
•		<i>Blastomonas natatoria</i>	•	•
	•	<i>Blastomonas ursincola</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Bordetella</i>	•	•
		<i>Bordetella avium</i>	•	•
		<i>Bordetella bronchiseptica</i>	•	
		<i>Bordetella bronchiseptica/parapertussis/pertussis</i>		•
		<i>Bordetella hinzii</i>	•	•
		<i>Bordetella holmesii</i>	•	•
		<i>Bordetella parapertussis</i>	•	
		<i>Bordetella pertussis</i>	•	
		<i>Bordetella petrii</i>	•	•
		<i>Bordetella trematum</i>	•	•
		<i>Brachybacterium</i>	•	•
•		<i>Brachybacterium alimentarium</i>	•	•
•		<i>Brachybacterium conglomeratum</i>	•	
•		<i>Brachybacterium nesterenkovi</i>	•	•
•		<i>Brachybacterium rhamnosum</i>	•	•
		<i>Brachyspira</i>		•
		<i>Brachyspira hyodysenteriae</i>		•
		<i>Brachyspira intermedia</i>	•	•
		<i>Brachyspira pilosicoli</i>	•	•
•		<i>Bradyrhizobium denitrificans</i>	•	•
•		<i>Bradyrhizobium japonicum</i>	•	•
		<i>Brevibacillus</i>		•
		<i>Brevibacillus agri</i>	•	•
		<i>Brevibacillus borstelensis</i>	•	•
		<i>Brevibacillus brevis</i>	•	•
		<i>Brevibacillus centrosporus</i>	•	•
		<i>Brevibacillus choshinensis</i>	•	•
		<i>Brevibacillus invocatus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Brevibacillus laterosporus</i>	•	•
		<i>Brevibacillus parabrevis</i>	•	•
		<i>Brevibacillus thermoruber</i>	•	•
		<i>Brevibacterium</i>	•	•
	•	<i>Brevibacterium casei</i>	•	•
•		<i>Brevibacterium epidermidis</i>	•	•
•		<i>Brevibacterium iodinum</i>	•	•
•		<i>Brevibacterium linens</i>	•	•
	•	<i>Brevibacterium luteolum</i>	•	•
•		<i>Brevibacterium otitidis</i>	•	
•		<i>Brevibacterium pityocampae</i>	•	•
•		<i>Brevibacterium sanguinis</i>	•	•
		<i>Brevundimonas</i>	•	•
		<i>Brevundimonas diminuta</i>	•	•
		<i>Brevundimonas diminuta/vesicularis</i>	•	
•		<i>Brevundimonas subvibrioides</i>	•	•
	•	<i>Brevundimonas vesicularis</i>	•	•
		<i>Brochothrix thermosphacta</i>	•	•
		<i>Brucella</i>		•
		<i>Brucella abortus</i>	•	•
		<i>Brucella abortus</i> biovar 1	•	
		<i>Brucella abortus</i> biovar 2	•	
		<i>Brucella abortus</i> biovar 3	•	
		<i>Brucella abortus</i> biovar 4	•	
		<i>Brucella abortus</i> biovar 5	•	
		<i>Brucella abortus</i> biovar 6	•	
		<i>Brucella abortus</i> biovar 7	•	
		<i>Brucella abortus</i> biovar 9	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Brucella canis</i>	•	
		<i>Brucella ceti</i>	•	
		<i>Brucella ceti/pinnipedialis</i>		•
		<i>Brucella inopinata</i>	•	•
		<i>Brucella melitensis</i>	•	
		<i>Brucella melitensis</i> biovar 1	•	
		<i>Brucella melitensis</i> biovar 2	•	
		<i>Brucella melitensis</i> biovar 3	•	
		<i>Brucella microti</i>	•	•
		<i>Brucella neotomae</i>	•	•
		<i>Brucella ovis</i>	•	•
		<i>Brucella papionis</i>	•	•
		<i>Brucella pinnipedialis</i>	•	
		<i>Brucella suis</i>	•	
		<i>Brucella suis</i> biovar 1	•	
		<i>Brucella suis</i> biovar 2	•	
		<i>Brucella suis</i> biovar 3	•	
		<i>Brucella suis</i> biovar 4	•	
		<i>Brucella suis</i> biovar 5	•	
		<i>Budvicia aquatica</i>	•	•
		<i>Burkholderia</i>	•	•
		<i>Burkholderia ambifaria</i>	•	•
		<i>Burkholderia anthina</i>	•	•
		<i>Burkholderia arboris</i>	•	•
		<i>Burkholderia cenocepacia</i>	•	•
		<i>Burkholderia cepacia</i>	•	•
		<i>Burkholderia cepacia/multivorans</i>		•
		<i>Burkholderia contaminans</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Burkholderia diffusa</i>	•	•
		<i>Burkholderia dolosa</i>	•	•
		<i>Burkholderia gladioli</i>	•	•
		<i>Burkholderia lata</i>	•	•
		<i>Burkholderia latens</i>	•	•
		<i>Burkholderia mallei</i>	•	•
		<i>Burkholderia mallei/pseudomallei</i>		•
		<i>Burkholderia metallica</i>	•	•
		<i>Burkholderia multivorans</i>	•	•
		<i>Burkholderia pseudomallei</i>	•	•
		<i>Burkholderia pyrrocinia</i>	•	•
		<i>Burkholderia seminalis</i>	•	
		<i>Burkholderia stabilis</i>	•	•
		<i>Burkholderia thailandensis</i>	•	•
		<i>Burkholderia ubonensis</i>	•	•
		<i>Burkholderia vietnamiensis</i>	•	•
		<i>Buttiauxella agrestis</i>	•	•
		<i>Caldibacillus debilis</i>	•	•
		<i>Campylobacter</i>	•	•
		<i>Campylobacter coli</i>	•	•
		<i>Campylobacter curvus</i>	•	•
		<i>Campylobacter fetus</i>		•
		<i>Campylobacter fetus ssp fetus</i>	•	•
		<i>Campylobacter fetus ssp venerealis</i>	•	
		<i>Campylobacter gracilis</i>	•	
		<i>Campylobacter hyointestinalis</i>	•	•
		<i>Campylobacter jejuni</i>	•	•
		<i>Campylobacter jejuni ssp doylei</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Campylobacter jejuni</i> ssp <i>jejuni</i>	•	
		<i>Campylobacter lari</i>	•	•
		<i>Campylobacter mucosalis</i>	•	•
		<i>Campylobacter rectus</i>	•	•
		<i>Campylobacter sputorum</i>	•	•
		<i>Campylobacter upsaliensis</i>	•	•
		<i>Campylobacter ureolyticus</i>	•	•
		<i>Capnocytophaga</i>	•	•
		<i>Capnocytophaga canimorsus</i>	•	•
		<i>Capnocytophaga canimorsus/cynodegmi</i>		•
		<i>Capnocytophaga gingivalis</i>	•	•
		<i>Capnocytophaga granulosa</i>	•	•
		<i>Capnocytophaga ochracea</i>	•	
		<i>Capnocytophaga ochracea/sputigena</i>		•
		<i>Capnocytophaga sputigena</i>	•	
		<i>Cardiobacterium hominis</i>	•	•
		<i>Carnobacterium divergens</i>	•	•
		<i>Carnobacterium maltaromaticum</i>	•	•
•		<i>Caulobacter vibrioides</i>	•	•
		<i>Cedecea</i>		•
		<i>Cedecea davisae</i>	•	
		<i>Cedecea lapagei</i>	•	•
		<i>Cedecea neteri</i>	•	
		<i>Cellulomonas uda</i>	•	•
		<i>Chlorobium</i>		•
		<i>Chlorobium clathratiforme</i>		•
		<i>Chlorobium phaeobacteroides</i>	•	
		<i>Chromobacterium violaceum</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Chryseobacterium</i>	•	•
		<i>Chryseobacterium daecheongense</i>	•	
		<i>Chryseobacterium defluvii</i>	•	
		<i>Chryseobacterium gleum</i>	•	•
		<i>Chryseobacterium indologenes</i>	•	•
	•	<i>Citrobacter</i>		•
	•	<i>Citrobacter amalonaticus</i>	•	•
	•	<i>Citrobacter amalonaticus/farmeri</i>	•	•
	•	<i>Citrobacter braakii</i>	•	•
	•	<i>Citrobacter farmeri</i>	•	•
	•	<i>Citrobacter freundii</i>	•	•
•		<i>Citrobacter gillenii</i>	•	•
	•	<i>Citrobacter koseri</i>	•	•
•		<i>Citrobacter murlinae</i>	•	•
	•	<i>Citrobacter rodentium</i>	•	
	•	<i>Citrobacter sedlakii</i>	•	•
	•	<i>Citrobacter werkmanii</i>	•	
	•	<i>Citrobacter youngae</i>	•	
		<i>Clostridioides difficile</i> (Synonym: <i>Clostridium difficile</i> )	•	•
•		<i>Clostridioides mangenotii</i>	•	•
		<i>Clostridium</i>	•	•
		<i>Clostridium acetobutylicum</i>	•	•
		<i>Clostridium arbusti</i>	•	
		<i>Clostridium baratii</i>	•	•
		<i>Clostridium beijerinckii</i>	•	•
		<i>Clostridium botulinum</i>		•
		<i>Clostridium butyricum</i>	•	•
		<i>Clostridium cadaveris</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Clostridium chauvoei</i>	•	•
		<i>Clostridium cochlearium</i>	•	
		<i>Clostridium colicanis</i>	•	•
		<i>Clostridium fallax</i>	•	•
		<i>Clostridium haemolyticum</i>	•	•
		<i>Clostridium innocuum</i>	•	•
•		<i>Clostridium malenominatum</i>	•	•
		<i>Clostridium moniliforme</i>	•	
		<i>Clostridium novyi</i>	•	•
		<i>Clostridium paraputrificum</i>	•	•
		<i>Clostridium pasteurianum</i>	•	•
		<i>Clostridium perfringens</i>	•	•
		<i>Clostridium ramosum</i>	•	•
		<i>Clostridium scatologenes</i>	•	
•		<i>Clostridium scindens</i>	•	•
		<i>Clostridium septicum</i>	•	•
		<i>Clostridium spiroforme</i>	•	•
		<i>Clostridium sporogenes</i>	•	•
		<i>Clostridium subterminale</i>	•	•
		<i>Clostridium symbiosum</i>	•	•
		<i>Clostridium tertium</i>	•	•
		<i>Clostridium tetani</i>	•	•
	•	<i>Clostridium tetanomorphum</i>	•	•
		<i>Clostridium tyrobutyricum</i>	•	•
		<i>Coenonia anatina</i>	•	•
		<i>Comamonadaceae</i>		•
		<i>Comamonas</i>	•	•
		<i>Comamonas aquatica</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
•		<i>Comamonas terrigena</i>	•	•
	•	<i>Comamonas testosteroni</i>	•	•
		<i>Corynebacterium</i>	•	•
		<i>Corynebacterium accolens</i>	•	•
		<i>Corynebacterium afermentans</i>	•	
		<i>Corynebacterium afermentans ssp afermentans</i>	•	
	•	<i>Corynebacterium afermentans ssp lipophilum</i>	•	
•		<i>Corynebacterium ammoniagenes</i>	•	•
		<i>Corynebacterium amycolatum</i>	•	•
		<i>Corynebacterium amycolatum/striatum</i>	•	
		<i>Corynebacterium amycolatum/xerosis</i>		•
		<i>Corynebacterium argentoratense</i>	•	•
		<i>Corynebacterium aurimucosum</i>	•	•
		<i>Corynebacterium auris</i>	•	•
		<i>Corynebacterium auriscanis</i>	•	•
		<i>Corynebacterium bovis</i>	•	•
•		<i>Corynebacterium casei</i>	•	•
		<i>Corynebacterium confusum</i>	•	•
		<i>Corynebacterium coyleae</i>	•	•
		<i>Corynebacterium cystitidis</i>	•	•
		<i>Corynebacterium diphtheriae</i>	•	•
		<i>Corynebacterium durum</i>	•	•
		<i>Corynebacterium falsenii</i>	•	•
		<i>Corynebacterium freneyi</i>	•	•
		<i>Corynebacterium glucuronolyticum</i>	•	•
		<i>Corynebacterium glutamicum</i>	•	•
		<i>Corynebacterium glyciniphilum</i>	•	•
		<i>Corynebacterium imitans</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Corynebacterium jeikeium</i>	•	•
		<i>Corynebacterium kroppenstedtii</i>	•	•
		<i>Corynebacterium kutscheri</i>	•	•
		<i>Corynebacterium macginleyi</i>	•	•
		<i>Corynebacterium mastitidis</i>	•	•
		<i>Corynebacterium matruchotii</i>	•	•
		<i>Corynebacterium minutissimum</i>	•	•
		<i>Corynebacterium mucifaciens</i>	•	
		<i>Corynebacterium mycetoides</i>	•	•
		<i>Corynebacterium otitidis</i> (Synonym: <i>Turicella otitidis</i> )	•	•
		<i>Corynebacterium pilosum</i>	•	•
		<i>Corynebacterium propinquum</i>	•	•
		<i>Corynebacterium pseudodiphtheriticum</i>	•	•
		<i>Corynebacterium pseudotuberculosis</i>	•	•
		<i>Corynebacterium renale</i>	•	•
		<i>Corynebacterium riegliei</i>	•	
		<i>Corynebacterium simulans</i>	•	•
		<i>Corynebacterium stationis</i>	•	•
		<i>Corynebacterium striatum</i>	•	•
		<i>Corynebacterium sundsvallense</i>	•	•
		<i>Corynebacterium testudinoris</i>	•	
	•	<i>Corynebacterium timonense</i>	•	
		<i>Corynebacterium tuberculostearicum</i>	•	•
		<i>Corynebacterium ulcerans</i>	•	•
		<i>Corynebacterium urealyticum</i>	•	•
		<i>Corynebacterium ureicelerivorans</i>	•	
		<i>Corynebacterium variabile</i>	•	•
		<i>Corynebacterium xerosis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Coxiella burnetii</i>		•
	•	<i>Cronobacter</i>		•
		<i>Cronobacter malonaticus</i>	•	•
		<i>Cronobacter muytjensii</i>	•	•
		<i>Cronobacter sakazakii</i>	•	•
		<i>Cronobacter turicensis</i>	•	•
•		<i>Cronobacter universalis</i>	•	•
•		<i>Cupriavidus basilensis</i>	•	•
		<i>Cupriavidus gilardii</i>	•	•
		<i>Cupriavidus necator</i>	•	•
		<i>Cupriavidus oxalaticus</i>	•	•
		<i>Cupriavidus pauculus</i>	•	•
		<i>Cupriavidus respiraculi</i>	•	•
		<i>Cutibacterium acnes</i>	•	•
	•	<i>Cutibacterium avidum</i>	•	
		<i>Cutibacterium granulorum</i>	•	•
•		<i>Cutibacterium namnetense</i>	•	•
		<i>Cytobacillus firmus</i> (Synonym: <i>Bacillus firmus</i> )	•	•
		<i>Cytobacillus horneckiae</i> (Synonym: <i>Bacillus horneckiae</i> )	•	•
		<i>Deinococcus</i>	•	
		<i>Delftia</i>	•	•
		<i>Delftia acidovorans</i>	•	•
		<i>Dermabacter hominis</i>	•	•
•		<i>Dermacoccus barathri</i>	•	
	•	<i>Dermacoccus nishinomiyaensis</i>	•	•
		<i>Desulfocapsa</i>	•	
		<i>Dialister micraerophilus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Dialister pneumosintes</i>	•	•
•		<i>Dickeya</i>		•
•		<i>Dickeya chrysanthemi</i>	•	•
•		<i>Dickeya dianthicola</i>	•	•
•		<i>Dickeya paradisiaca</i>	•	•
•		<i>Dickeya zeae</i>	•	•
		<i>Dietzia cinnamea</i>	•	•
		<i>Dietzia maris</i>	•	•
		<i>Dietzia natronolimnaea</i>	•	•
		<i>Dysgonomonas gadei</i>	•	
		<i>Edwardsiella</i>		•
		<i>Edwardsiella hoshinae</i>	•	
		<i>Edwardsiella tarda</i>	•	
		<i>Eggerthella</i>	•	
		<i>Eggerthella lenta</i>	•	•
		<i>Eggerthia catenaformis</i>	•	•
		<i>Eikenella</i>	•	
		<i>Eikenella corrodens</i>	•	•
		<i>Elizabethkingia</i>		•
		<i>Elizabethkingia anophelis</i>	•	•
		<i>Elizabethkingia endophytica</i>	•	
		<i>Elizabethkingia meningoseptica</i>	•	•
		<i>Elizabethkingia miricola</i>	•	•
		<i>Empedobacter brevis</i>	•	•
		<i>Empedobacter falsenii</i>	•	•
	•	<i>Enterobacter</i>	•	•
	•	<i>Enterobacter asburiae</i>	•	•
•		<i>Enterobacter bugandensis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Enterobacter cancerogenus</i>	•	•
	•	<i>Enterobacter cloacae</i>	•	•
•		<i>Enterobacter cloacae</i> ssp <i>cloacae</i>	•	•
	•	<i>Enterobacter cloacae</i> ssp <i>dissolvens</i>	•	•
		<i>Enterobacter cloacae/hormaechei</i>	•	
•		<i>Enterobacter hormaechei</i>		•
•		<i>Enterobacter hormaechei</i> ssp <i>hoffmannii</i>	•	•
•		<i>Enterobacter hormaechei</i> ssp <i>hormaechei</i>	•	•
•		<i>Enterobacter hormaechei</i> ssp <i>oharae</i>	•	•
•		<i>Enterobacter hormaechei</i> ssp <i>steigerwaltii</i>	•	•
•		<i>Enterobacter hormaechei</i> ssp <i>xiangfangensis</i>	•	•
	•	<i>Enterobacter kobei</i>	•	•
		<i>Enterobacter ludwigii</i>	•	•
•		<i>Enterobacter roggenkampii</i>	•	•
	•	<i>Enterobacter soli</i>	•	•
		<i>Enterobacteriaceae</i>	•	•
•		<i>Enterocloster aldenensis</i> (Synonym: <i>Clostridium aldanense</i> )	•	•
		<i>Enterocloster clostridioformis</i> (Synonym: <i>Clostridium clostridioforme</i> )	•	•
		<i>Enterococcus</i>		•
		<i>Enterococcus avium</i>	•	
		<i>Enterococcus avium/raffinosis</i>		•
		<i>Enterococcus casseliflavus</i>	•	•
		<i>Enterococcus casseliflavus/gallinarum</i>	•	
		<i>Enterococcus cecorum</i>	•	•
		<i>Enterococcus columbae</i>	•	•
		<i>Enterococcus durans</i>	•	•
		<i>Enterococcus faecalis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Enterococcus faecium</i>	•	•
		<i>Enterococcus gallinarum</i>	•	•
		<i>Enterococcus hirae</i>	•	•
		<i>Enterococcus italicus</i>	•	•
		<i>Enterococcus mundtii</i>	•	•
		<i>Enterococcus raffinosus</i>	•	•
		<i>Enterococcus saccharolyticus</i>	•	•
•		<i>Eremococcus coleocola</i>	•	
•		<i>Erwinia billingiae</i>	•	•
•		<i>Erwinia mallotivora</i>	•	•
•		<i>Erwinia rhapontici</i>	•	•
•		<i>Erwinia tasmaniensis</i>	•	•
•		<i>Erwinia tracheiphila</i>	•	•
		<i>Erysipelothrix rhusiopathiae</i>	•	•
		<i>Escherichia</i>	•	•
	•	<i>Escherichia albertii</i>	•	
		<i>Escherichia coli</i>	•	•
		<i>Escherichia fergusonii</i>	•	
		<i>Escherichia hermannii</i>	•	•
		<i>Eubacterium</i>		•
		<i>Eubacterium callanderi</i>	•	•
		<i>Eubacterium limosum</i>	•	•
		<i>Ewingella americana</i>	•	•
		<i>Exiguobacterium</i>	•	
		<i>Exiguobacterium acetylicum</i>	•	
		<i>Facklamia hominis</i>	•	•
•		<i>Facklamia ignava</i>	•	•
•		<i>Facklamia languida</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Falsarthrobacter nasiphocae</i>	•	
		<i>Fannyhessea vaginae</i> (Synonym: <i>Atopobium vaginae</i> )	•	•
		<i>Finegoldia magna</i>	•	•
		<i>Flavobacteriaceae</i>		•
		<i>Flavobacterium</i>	•	•
•		<i>Flavobacterium columnare</i>	•	•
•		<i>Flavobacterium frigidimarum</i>	•	
•		<i>Flavobacterium psychrophilum</i>	•	•
		<i>Flavonifractor plautii</i>	•	•
		<i>Fluoribacter dumoffii</i>	•	•
		<i>Fluoribacter gormanii</i>	•	•
		<i>Francisella philomiragia</i>	•	
		<i>Francisella tularensis</i>		•
		<i>Francisella tularensis</i> ssp <i>holarctica</i>	•	•
		<i>Franconibacter helveticus</i>	•	•
		<i>Franconibacter pulveris</i>	•	•
		<i>Fusobacterium</i>		•
		<i>Fusobacterium gonidiaformans</i>	•	•
		<i>Fusobacterium mortiferum</i>	•	•
		<i>Fusobacterium naviforme</i>	•	
		<i>Fusobacterium necrogenes</i>	•	
		<i>Fusobacterium necrophorum</i>	•	•
		<i>Fusobacterium necrophorum</i> ssp <i>necrophorum</i>	•	
		<i>Fusobacterium nucleatum</i>	•	•
		<i>Fusobacterium nucleatum</i> ssp <i>nucleatum</i>	•	
		<i>Fusobacterium periodonticum</i>	•	•
		<i>Fusobacterium russii</i>	•	•
		<i>Fusobacterium varium</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Gallibacterium anatis</i>	•	•
		<i>Gardnerella vaginalis</i>	•	•
		<i>Gemella</i>		•
		<i>Gemella bergeri</i>	•	•
		<i>Gemella haemolysans</i>	•	
		<i>Gemella morbillorum</i>	•	
		<i>Gemella sanguinis</i>	•	
		<i>Geobacillus stearothermophilus</i>	•	•
		<i>Geobacillus thermodenitrificans</i>	•	•
		<i>Glaesserella parasuis</i>	•	•
		<i>Gleimia europaea</i> (Synonym: <i>Actinomyces europaeus</i> )	•	•
		<i>Globicatella</i>		•
		<i>Globicatella sanguinis</i>	•	
		<i>Globicatella sulfidifaciens</i>	•	
		<i>Glutamicibacter ardleyensis</i>	•	
		<i>Glutamicibacter arilaitensis</i>	•	
		<i>Glutamicibacter bergerei</i>	•	
		<i>Glutamicibacter creatinolyticus</i>	•	
		<i>Glutamicibacter mysorens</i>	•	
		<i>Glutamicibacter nicotianae</i>	•	
		<i>Glutamicibacter protophormiae</i>	•	
		<i>Glutamicibacter uratoxydans</i>	•	
		<i>Gordonia alkanivorans</i>	•	•
		<i>Gordonia amarae</i>	•	•
		<i>Gordonia bronchialis</i>	•	•
		<i>Gordonia namibiensis</i>	•	•
		<i>Gordonia polyisoprenivorans</i>	•	
		<i>Gordonia rubripertincta</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Gordonia sputi</i>	•	•
		<i>Gordonia terrae</i>	•	•
		<i>Granulicatella</i>		•
		<i>Granulicatella adiacens</i>	•	•
		<i>Granulicatella elegans</i>	•	•
		<i>Grimontia hollisae</i>	•	•
		<i>Haematobacter massiliensis</i>	•	
	•	<i>Haemophilus</i>	•	•
•		<i>Haemophilus aegyptius</i>	•	
		<i>Haemophilus ducreyi</i>	•	
		<i>Haemophilus haemoglobinophilus</i>	•	•
		<i>Haemophilus haemolyticus</i>	•	
		<i>Haemophilus influenzae</i>	•	•
		<i>Haemophilus parahaemolyticus</i>	•	•
		<i>Haemophilus parainfluenzae</i>	•	•
		<i>Hafnia alvei</i>	•	•
		<i>Hathewayia histolytica</i>	•	•
		<i>Hathewayia limosa</i>	•	•
		<i>Helcococcus kunzii</i>	•	•
		<i>Helcococcus ovis</i>	•	•
		<i>Helicobacter cinaedi</i>	•	•
		<i>Helicobacter fennelliae</i>	•	•
		<i>Helicobacter pullorum</i>	•	•
		<i>Helicobacter pylori</i>	•	•
		<i>Herbaspirillum huttiense</i>	•	•
		<i>Histophilus somni</i>	•	•
		<i>Hydrogenophaga</i>		•
		<i>Ideonella</i>	•	



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Inquilinus limosus</i>	•	•
		<i>Janthinobacterium agaricidamnosum</i>	•	
		<i>Janthinobacterium lividum</i>	•	
•		<i>Kerstersia gyiorum</i>	•	•
		<i>Kineosporia aurantiaca</i>	•	
		<i>Kingella denitrificans</i>	•	•
		<i>Kingella kingae</i>	•	•
		<i>Klebsiella</i>	•	•
		<i>Klebsiella aerogenes</i> (Synonym: <i>Enterobacter aerogenes</i> )	•	•
		<i>Klebsiella oxytoca</i>	•	•
		<i>Klebsiella pneumoniae</i>	•	•
		<i>Klebsiella pneumoniae</i> ssp <i>ozaenae</i>	•	
		<i>Klebsiella pneumoniae</i> ssp <i>pneumoniae</i>	•	
		<i>Klebsiella pneumoniae</i> ssp <i>rhinoscleromatis</i>	•	
•		<i>Klebsiella variicola</i>	•	•
		<i>Kluyvera</i>	•	•
		<i>Kluyvera ascorbata</i>	•	•
		<i>Kluyvera cryocrescens</i>	•	•
		<i>Kluyvera intermedia</i>	•	•
		<i>Kocuria</i>	•	•
		<i>Kocuria carniphila</i>	•	•
•		<i>Kocuria flava</i>	•	
		<i>Kocuria palustris</i>	•	•
		<i>Kocuria rhizophila</i>	•	•
		<i>Kocuria rosea</i>	•	•
•		<i>Kocuria salsicia</i>	•	
		<i>Kocuria varians</i>	•	•
		<i>Kosakonia cowanii</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Kutzneria</i>	•	
•		<i>Kytococcus schroeteri</i>	•	•
	•	<i>Kytococcus sedentarius</i>	•	•
•		<i>Labrys wisconsinensis</i>	•	•
		<i>Lactobacillus</i>	•	•
		<i>Lactobacillus acidophilus</i>	•	
		<i>Lactobacillus acidophilus/gasseri</i>		•
		<i>Lactobacillus alimentarius</i>	•	•
		<i>Lactobacillus animalis</i>	•	
		<i>Lactobacillus backii</i>	•	
		<i>Lactobacillus brevis</i>	•	•
		<i>Lactobacillus buchneri</i>	•	•
		<i>Lactobacillus casei</i>	•	
		<i>Lactobacillus collinoides</i>	•	•
		<i>Lactobacillus coryniformis</i>	•	•
		<i>Lactobacillus crispatus</i>	•	•
		<i>Lactobacillus curvatus</i>	•	•
		<i>Lactobacillus delbrueckii</i>		•
		<i>Lactobacillus delbrueckii ssp bulgaricus</i>	•	
		<i>Lactobacillus delbrueckii ssp delbrueckii</i>	•	
		<i>Lactobacillus delbrueckii ssp lactis</i>	•	
		<i>Lactobacillus fermentum</i>	•	•
	•	<i>Lactobacillus fructivorans</i>	•	•
		<i>Lactobacillus fuchuensis</i>	•	•
		<i>Lactobacillus gasseri</i>	•	
		<i>Lactobacillus helveticus</i>	•	•
		<i>Lactobacillus hilgardii</i>	•	•
		<i>Lactobacillus iners</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Lactobacillus ingluviei</i>	•	•
		<i>Lactobacillus intestinalis</i>	•	
		<i>Lactobacillus jensenii</i>	•	•
	•	<i>Lactobacillus johnsonii</i>	•	•
		<i>Lactobacillus kefirii</i>	•	•
		<i>Lactobacillus lindneri</i>	•	•
		<i>Lactobacillus mali</i>	•	•
		<i>Lactobacillus otakiensis</i>	•	
		<i>Lactobacillus parabuchneri</i>	•	•
		<i>Lactobacillus paracasei</i>	•	•
		<i>Lactobacillus paracasei ssp paracasei</i>	•	
		<i>Lactobacillus paracasei ssp tolerans</i>	•	•
		<i>Lactobacillus paracollinoides</i>	•	•
		<i>Lactobacillus parakefirii</i>	•	
		<i>Lactobacillus paraplantarum</i>	•	•
		<i>Lactobacillus pentosus</i>	•	•
		<i>Lactobacillus pentosus/plantarum</i>		•
		<i>Lactobacillus perolens</i>	•	•
		<i>Lactobacillus plantarum</i>	•	
		<i>Lactobacillus reuteri</i>	•	•
		<i>Lactobacillus rhamnosus</i>	•	•
		<i>Lactobacillus rossiae</i>	•	
•		<i>Lactobacillus ruminis</i>	•	•
		<i>Lactobacillus sakei</i>	•	•
	•	<i>Lactobacillus salivarius</i>	•	•
		<i>Lactobacillus vaginalis</i>	•	
		<i>Lactococcus garvieae</i>	•	•
		<i>Lactococcus lactis</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Lactococcus lactis</i> ssp <i>cremoris</i>	•	
		<i>Lactococcus lactis</i> ssp <i>hordniae</i>	•	
		<i>Lactococcus lactis</i> ssp <i>lactis</i>	•	
		<i>Lactococcus plantarum</i>	•	
		<i>Lactococcus raffinolactis</i>	•	•
		<i>Lamprocystis</i>		•
		<i>Lamprocystis purpurea</i>	•	•
		<i>Lancefieldella parvula</i> (Synonym: <i>Atopobium parvulum</i> )	•	•
		<i>Lancefieldella rimae</i> (Synonym: <i>Atopobium rimae</i> )	•	•
		<i>Leclercia</i>	•	
		<i>Leclercia adecarboxylata</i>	•	•
		<i>Legionella</i>		•
		<i>Legionella anisa</i>	•	•
		<i>Legionella birminghamensis</i>	•	•
		<i>Legionella bozemanae</i>	•	•
		<i>Legionella cherrii</i>	•	•
		<i>Legionella cincinnatiensis</i>	•	•
		<i>Legionella drancourtii</i>		•
		<i>Legionella erythra</i>	•	•
		<i>Legionella feeleeii</i>	•	•
		<i>Legionella hackeliae</i>	•	•
		<i>Legionella israelensis</i>	•	•
		<i>Legionella jamestowniensis</i>	•	•
		<i>Legionella jordanis</i>	•	•
		<i>Legionella lansingensis</i>	•	•
		<i>Legionella londiniensis</i>	•	•
		<i>Legionella longbeachae</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Legionella oakridgensis</i>	•	•
		<i>Legionella parisiensis</i>	•	•
		<i>Legionella pneumophila</i>	•	•
		<i>Legionella pneumophila</i> ssp <i>fraseri</i>	•	
		<i>Legionella pneumophila</i> ssp <i>pascullei</i>	•	
		<i>Legionella pneumophila</i> ssp <i>pneumophila</i>	•	
		<i>Legionella rubrilucens</i>	•	•
		<i>Legionella sainthelensi</i>	•	•
		<i>Legionella steigerwaltii</i>	•	•
		<i>Legionella taurinensis</i>	•	•
		<i>Legionella wadsworthii</i>	•	•
		<i>Leifsonia aquatica</i>	•	•
		<i>Leifsonia xyli</i>	•	
		<i>Lelliottia amnigena</i>	•	
		<i>Leptospira</i>		•
		<i>Leptothrix mobilis</i>	•	
		<i>Leptotrichia buccalis</i>	•	•
		<i>Leuconostoc</i>	•	•
		<i>Leuconostoc carnosum</i>	•	•
		<i>Leuconostoc citreum</i>	•	•
		<i>Leuconostoc fallax</i>	•	•
		<i>Leuconostoc lactis</i>		•
		<i>Leuconostoc mesenteroides</i>	•	•
		<i>Leuconostoc mesenteroides</i> ssp <i>cremoris</i>	•	•
		<i>Leuconostoc mesenteroides</i> ssp <i>dextranicum</i>	•	
		<i>Leuconostoc mesenteroides</i> ssp <i>mesenteroides</i>	•	
		<i>Leuconostoc pseudomesenteroides</i>	•	•
		<i>Listeria</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Listeria aquatica</i>	•	•
		<i>Listeria booriae</i>	•	
		<i>Listeria cornellensis</i>	•	
	•	<i>Listeria fleischmannii</i>	•	•
		<i>Listeria floridensis</i>	•	•
		<i>Listeria grandensis</i>	•	
		<i>Listeria grayi</i>	•	•
		<i>Listeria innocua</i>	•	•
		<i>Listeria ivanovii</i>	•	•
		<i>Listeria ivanovii</i> ssp <i>ivanovii</i>	•	
		<i>Listeria ivanovii</i> ssp <i>londoniensis</i>	•	
		<i>Listeria marthii</i>	•	•
		<i>Listeria monocytogenes</i>	•	•
		<i>Listeria newyorkensis</i>	•	
		<i>Listeria riparia</i>	•	
		<i>Listeria rocourtiae</i>	•	•
		<i>Listeria seeligeri</i>	•	•
		<i>Listeria weihenstephanensis</i>	•	•
		<i>Listeria welshimeri</i>	•	•
	•	<i>Lysinibacillus</i>		•
		<i>Lysinibacillus fusiformis</i>	•	
		<i>Lysinibacillus fusiformis/sphaericus</i>		•
	•	<i>Lysinibacillus sphaericus</i>	•	•
		<i>Malacoplasma iowae</i> (Synonym: <i>Mycoplasma iowae</i> )	•	
		<i>Malacoplasma penetrans</i> (Synonym: <i>Mycoplasma penetrans</i> )	•	
•		<i>Malikia granosa</i>	•	
		<i>Mannheimia granulomatis</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Mannheimia haemolytica</i>	•	•
•		<i>Massilia timonae</i>	•	•
		<i>Megasphaera cerevisiae</i>	•	•
		<i>Megasphaera sueciensis</i>	•	
•		<i>Mesobacillus foraminis</i> (Synonym: <i>Bacillus foraminis</i> )	•	
		<i>Mesomycoplasma bovoculi</i> (Synonym: <i>Mycoplasma bovoculi</i> )	•	•
		<i>Mesomycoplasma conjunctivae</i> (Synonym: <i>Mycoplasma conjunctivae</i> )	•	•
		<i>Mesomycoplasma hyopneumoniae</i> (Synonym: <i>Mycoplasma hyopneumoniae</i> )	•	•
		<i>Mesomycoplasma hyorhinis</i> (Synonym: <i>Mycoplasma hyorhinis</i> )	•	•
		<i>Mesomycoplasma ovipneumoniae</i> (Synonym: <i>Mycoplasma ovipneumoniae</i> )	•	
		<i>Metamycoplasma alkalescens</i> (Synonym: <i>Mycoplasma alkalescens</i> )	•	•
		<i>Metamycoplasma canadense</i> (Synonym: <i>Mycoplasma canadense</i> )	•	•
		<i>Metamycoplasma hominis</i> (Synonym: <i>Mycoplasma hominis</i> )	•	•
		<i>Metamycoplasma hyosynoviae</i> (Synonym: <i>Mycoplasma hyosynoviae</i> )	•	
		<i>Metamycoplasma orale</i> (Synonym: <i>Mycoplasma orale</i> )	•	•
		<i>Metamycoplasma salivarium</i> (Synonym: <i>Mycoplasma salivarium</i> )	•	•
		<i>Methylobacterium</i>	•	•
•		<i>Methylobacterium aquaticum</i>	•	
•		<i>Methylobacterium brachiatum</i>	•	•
	•	<i>Methylobacterium fujisawaense</i>	•	•
•		<i>Methylobacterium marchantiae</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Methylobacterium mesophilicum</i>	•	
•		<i>Methylobacterium organophilum</i>	•	
•		<i>Methylobacterium oryzae</i>	•	
	•	<i>Methylobacterium radiotolerans</i>	•	•
	•	<i>Methylorubrum extorquens</i> (Synonym: <i>Methylobacterium extorquens</i> )	•	
•		<i>Methylorubrum populi</i> (Synonym: <i>Methylobacterium populi</i> )	•	
•		<i>Methylorubrum zatmanii</i> (Synonym: <i>Methylobacterium zatmanii</i> )	•	•
	•	<i>Microbacterium</i>	•	•
		<i>Microbacterium aerolatum</i>	•	
•		<i>Microbacterium aoyamense</i>	•	•
	•	<i>Microbacterium arborescens</i>	•	•
	•	<i>Microbacterium aurum</i>	•	•
		<i>Microbacterium dextranolyticum</i>	•	
	•	<i>Microbacterium flavescens</i>	•	
•		<i>Microbacterium foliorum</i>	•	
		<i>Microbacterium hydrocarbonoxydans</i>	•	
		<i>Microbacterium keratanolyticum</i>	•	
		<i>Microbacterium ketosireducens</i>	•	
		<i>Microbacterium koreense</i>	•	
•		<i>Microbacterium lacticum</i>	•	
	•	<i>Microbacterium laevaniformans</i>	•	
•		<i>Microbacterium liquefaciens</i>	•	
		<i>Microbacterium luteolum</i>	•	
•		<i>Microbacterium maritypicum</i>	•	
		<i>Microbacterium natoriense</i>	•	
		<i>Microbacterium oleivorans</i>	•	



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
•		<i>Microbacterium oxydans</i>	•	
	•	<i>Microbacterium paraoxydans</i>	•	•
		<i>Microbacterium phyllosphaerae</i>	•	
•		<i>Microbacterium resistens</i>	•	•
•		<i>Microbacterium saperdae</i>	•	
	•	<i>Microbacterium schleiferi</i>	•	
	•	<i>Microbacterium testaceum</i>	•	
		<i>Microbacterium thalassium</i>	•	
•		<i>Microbacterium trichothecenolyticum</i>	•	•
		<i>Micrococcaceae</i>	•	
		<i>Micrococcus</i>	•	•
•		<i>Micrococcus antarcticus</i>	•	
•		<i>Micrococcus cohnii</i>	•	
•		<i>Micrococcus endophyticus</i>	•	
		<i>Micrococcus luteus</i>	•	•
•		<i>Micrococcus lylae</i>	•	•
•		<i>Micrococcus terreus</i>	•	•
		<i>Mitsuaria chitosanitabida</i>	•	
•		<i>Mixta calida</i>	•	•
		<i>Mobiluncus curtisii</i>	•	•
		<i>Mobiluncus mulieris</i>	•	•
		<i>Moellerella wisconsensis</i>	•	•
		<i>Moraxella</i>	•	•
		<i>Moraxella atlantae</i>	•	•
		<i>Moraxella bovis</i>	•	•
		<i>Moraxella canis</i>	•	
		<i>Moraxella catarrhalis</i>	•	•
		<i>Moraxella caviae</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Moraxella cuniculi</i>	•	•
		<i>Moraxella lacunata</i>	•	•
		<i>Moraxella nonliquefaciens</i>	•	•
		<i>Moraxella osloensis</i>	•	•
		<i>Moraxella ovis</i> (Synonym: <i>Neisseria ovis</i> )	•	•
		<i>Morganella morganii</i>	•	•
		<i>Morganella morganii</i> ssp <i>morganii</i>	•	
		<i>Morganella morganii</i> ssp <i>sibonii</i>	•	
	•	<i>Mycobacterium</i>	•	•
		<i>Mycobacterium africanum</i>	•	
		<i>Mycobacterium asiaticum</i>	•	•
	•	<i>Mycobacterium avium</i>	•	•
•		<i>Mycobacterium avium</i> ssp <i>paratuberculosis</i>	•	
•		<i>Mycobacterium bohemicum</i>	•	•
		<i>Mycobacterium bovis</i>	•	
•		<i>Mycobacterium branderi</i>	•	•
		<i>Mycobacterium celatum</i>	•	•
•		<i>Mycobacterium florentinum</i>	•	•
		<i>Mycobacterium gastri</i>	•	•
		<i>Mycobacterium genavense</i>	•	
		<i>Mycobacterium gordonae</i>	•	•
		<i>Mycobacterium haemophilum</i>	•	•
	•	<i>Mycobacterium heckeshornense</i>	•	•
•		<i>Mycobacterium heidelbergense</i>	•	•
•		<i>Mycobacterium interjectum</i>	•	•
		<i>Mycobacterium intracellulare</i>	•	•
	•	<i>Mycobacterium intracellulare</i> ssp <i>chimaera</i>	•	•
		<i>Mycobacterium kansasii</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Mycobacterium kubicae</i>	•	•
		<i>Mycobacterium lentiflavum</i>	•	•
		<i>Mycobacterium malmoense</i>	•	•
•		<i>Mycobacterium mantenii</i>	•	•
		<i>Mycobacterium marinum</i>	•	•
		<i>Mycobacterium microti</i>	•	
		<i>Mycobacterium nebraskense</i>	•	•
•		<i>Mycobacterium palustre</i>	•	
	•	<i>Mycobacterium paraffinicum</i>	•	•
•		<i>Mycobacterium paragordoniae</i>	•	•
•		<i>Mycobacterium parascrofulaceum</i>	•	•
•		<i>Mycobacterium riyadhense</i>	•	•
		<i>Mycobacterium scrofulaceum</i>	•	•
		<i>Mycobacterium sherrisii</i>	•	
•		<i>Mycobacterium shigaense</i>	•	
		<i>Mycobacterium shimoidei</i>	•	•
		<i>Mycobacterium simiae</i>	•	•
		<i>Mycobacterium szulgai</i>	•	•
	•	<i>Mycobacterium triplex</i>	•	•
		<i>Mycobacterium tuberculosis</i>	•	
		<i>Mycobacterium tuberculosis</i> -Complex (Included: <i>M. africanum</i> , <i>M. bovis</i> , <i>M. microti</i> , <i>M. tuberculosis</i> )		•
•		<i>Mycobacterium ulcerans</i>	•	•
		<i>Mycobacterium xenopi</i>	•	•
	•	<i>Mycobacteroides abscessus</i> (Synonym: <i>Mycobacterium abscessus</i> )	•	•
•		<i>Mycobacteroides abscessus</i> ssp <i>bolletii</i> (Synonym: <i>Mycobacterium abscessus</i> ssp <i>bolletii</i> )	•	•
•		<i>Mycobacteroides abscessus</i> ssp <i>massiliense</i> (Synonym: <i>Mycobacterium abscessus</i> ssp <i>massiliensis</i> )	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Mycobacteroides chelonae</i> (Synonym: <i>Mycobacterium chelonae</i> )	•	•
		<i>Mycobacteroides immunogenum</i> (Synonym: <i>Mycobacterium immunogenum</i> )	•	•
•		<i>Mycolicibacillus koreensis</i> (Synonym: <i>Mycobacterium koreense</i> )	•	
	•	<i>Mycolicibacillus trivialis</i> (Synonym: <i>Mycobacterium trivialis</i> )	•	
		<i>Mycolicibacter arupensis</i> (Synonym: <i>Mycobacterium arupense</i> )	•	
		<i>Mycolicibacter arupensis/nonchromogenicus</i> (Synonym: <i>Mycobacterium arupense/nonchromogenicum</i> )		•
•		<i>Mycolicibacter engbaekii</i> (Synonym: <i>Mycobacterium engbaekii</i> )	•	•
	•	<i>Mycolicibacter kumamotonensis</i> (Synonym: <i>Mycobacterium kumamotonensis</i> )	•	•
		<i>Mycolicibacter nonchromogenicus</i> (Synonym: <i>Mycobacterium nonchromogenicum</i> )	•	
		<i>Mycolicibacter senuensis</i> (Synonym: <i>Mycobacterium senuensis</i> )	•	
	•	<i>Mycolicibacter terrae</i> (Synonym: <i>Mycobacterium terrae</i> )	•	•
		<i>Mycolicibacterium agri</i> (Synonym: <i>Mycobacterium agri</i> )	•	•
•		<i>Mycolicibacterium aichiense</i> (Synonym: <i>Mycobacterium aichiense</i> )	•	•
		<i>Mycolicibacterium aurum</i> (Synonym: <i>Mycobacterium aurum</i> )	•	•
•		<i>Mycolicibacterium austroafricanum</i> (Synonym: <i>Mycobacterium austroafricanum</i> )	•	•
	•	<i>Mycolicibacterium brisbanense</i> (Synonym: <i>Mycobacterium brisbanense</i> )	•	•
•		<i>Mycolicibacterium chitae</i> (Synonym: <i>Mycobacterium chitae</i> )	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Mycolicibacterium cosmeticum</i> (Synonym: <i>Mycobacterium cosmeticum</i> )	•	•
	•	<i>Mycolicibacterium diernhoferi</i> (Synonym: <i>Mycobacterium diernhoferi</i> )	•	
	•	<i>Mycolicibacterium duvalii</i> (Synonym: <i>Mycobacterium duvalii</i> )	•	
•		<i>Mycolicibacterium elephantis</i> (Synonym: <i>Mycobacterium elephantis</i> )	•	•
		<i>Mycolicibacterium farcinogenes</i> (Synonym: <i>Mycobacterium farcinogenes</i> )	•	
		<i>Mycolicibacterium flavescens</i> (Synonym: <i>Mycobacterium flavescens</i> )	•	•
		<i>Mycolicibacterium fortuitum</i> (Synonym: <i>Mycobacterium fortuitum</i> )	•	
		<i>Mycolicibacterium fortuitum</i> -Complex (Synonym: <i>Mycobacterium fortuitum</i> -Complex) (Included: <i>M. farcinogenes</i> , <i>M. fortuitum</i> , <i>M. porcinum</i> , <i>M. senegalense</i> )		•
	•	<i>Mycolicibacterium gilvum</i> (Synonym: <i>Mycobacterium gilvum</i> )	•	•
		<i>Mycolicibacterium goodii</i> (Synonym: <i>Mycobacterium goodii</i> )	•	•
•		<i>Mycolicibacterium hassiacum</i> (Synonym: <i>Mycobacterium hassiacum</i> )	•	•
•		<i>Mycolicibacterium iranicum</i> (Synonym: <i>Mycobacterium iranicum</i> )	•	•
		<i>Mycolicibacterium mageritense</i> (Synonym: <i>Mycobacterium mageritense</i> )	•	•
		<i>Mycolicibacterium moriokaense</i> (Synonym: <i>Mycobacterium moriokaense</i> )	•	•
		<i>Mycolicibacterium mucogenicum</i> (Synonym: <i>Mycobacterium mucogenicum</i> )	•	•
		<i>Mycolicibacterium neoaurum</i> (Synonym: <i>Mycobacterium neoaurum</i> )	•	•
•		<i>Mycolicibacterium novocastrense</i> (Synonym: <i>Mycobacterium novocastrense</i> )	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Mycolicibacterium obuense</i> (Synonym: <i>Mycobacterium obuense</i> )	•	•
•		<i>Mycolicibacterium parafortuitum</i> (Synonym: <i>Mycobacterium parafortuitum</i> )	•	•
		<i>Mycolicibacterium peregrinum</i> (Synonym: <i>Mycobacterium peregrinum</i> )	•	•
		<i>Mycolicibacterium phlei</i> (Synonym: <i>Mycobacterium phlei</i> )	•	•
•		<i>Mycolicibacterium phocaicum</i> (Synonym: <i>Mycobacterium phocaicum</i> )	•	•
		<i>Mycolicibacterium porcinum</i> (Synonym: <i>Mycobacterium porcinum</i> )	•	
	•	<i>Mycolicibacterium rhodesiae</i> (Synonym: <i>Mycobacterium rhodesiae</i> )	•	
		<i>Mycolicibacterium senegalense</i> (Synonym: <i>Mycobacterium senegalense</i> )	•	
•		<i>Mycolicibacterium septicum</i> (Synonym: <i>Mycobacterium septicum</i> )	•	•
		<i>Mycolicibacterium smegmatis</i> (Synonym: <i>Mycobacterium smegmatis</i> )	•	•
	•	<i>Mycolicibacterium thermoresistibile</i> (Synonym: <i>Mycobacterium thermoresistibile</i> )	•	•
		<i>Mycolicibacterium vaccae</i> (Synonym: <i>Mycobacterium vaccae</i> )	•	•
•		<i>Mycolicibacterium wolinskyi</i> (Synonym: <i>Mycobacterium wolinskyi</i> )	•	•
		<i>Mycoplasma</i>	•	•
		<i>Mycoplasma putrefaciens</i>	•	
		<i>Mycoplasmoides alvi</i> (Synonym: <i>Mycoplasma alvi</i> )	•	•
		<i>Mycoplasmoides gallisepticum</i> (Synonym: <i>Mycoplasma gallisepticum</i> )	•	•
		<i>Mycoplasmoides genitalium</i> (Synonym: <i>Mycoplasma genitalium</i> )	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Mycoplasmaoides pirum</i> (Synonym: <i>Mycoplasma pirum</i> )	•	•
		<i>Mycoplasmaoides pneumoniae</i> (Synonym: <i>Mycoplasma pneumoniae</i> )	•	•
		<i>Mycoplasmaopsis arginini</i> (Synonym: <i>Mycoplasma arginini</i> )	•	•
		<i>Mycoplasmaopsis bovigenitalium</i> (Synonym: <i>Mycoplasma bovigenitalium</i> )	•	•
		<i>Mycoplasmaopsis californica</i> (Synonym: <i>Mycoplasma californica</i> )	•	•
		<i>Mycoplasmaopsis fermentans</i> (Synonym: <i>Mycoplasma fermentans</i> )	•	•
		<i>Mycoplasmaopsis meleagridis</i> (Synonym: <i>Mycoplasma meleagridis</i> )	•	
		<i>Mycoplasmaopsis synoviae</i> (Synonym: <i>Mycoplasma synoviae</i> )	•	
		<i>Mycoplasmaopsis verecunda</i> (Synonym: <i>Mycoplasma verecundum</i> )	•	
	•	<i>Myroides</i>	•	•
•		<i>Myroides marinus</i>	•	•
	•	<i>Myroides odoratimimus</i>	•	•
	•	<i>Myroides odoratus</i>	•	•
•		<i>Myroides phaeus</i>	•	
		<i>Neisseria</i>	•	•
		<i>Neisseria animaloris</i>	•	•
		<i>Neisseria canis</i>	•	•
		<i>Neisseria cinerea</i>	•	•
		<i>Neisseria elongata</i>	•	
		<i>Neisseria flava</i>	•	•
		<i>Neisseria flavescens</i>	•	
		<i>Neisseria gonorrhoeae</i>	•	•
		<i>Neisseria lactamica</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Neisseria meningitidis</i>	•	•
		<i>Neisseria mucosa</i>	•	
		<i>Neisseria perflava</i>	•	
		<i>Neisseria polysaccharea</i>	•	•
		<i>Neisseria sicca</i>	•	
		<i>Neisseria subflava</i>	•	•
		<i>Neisseria wadsworthii</i>	•	•
		<i>Neisseria weaveri</i>	•	•
		<i>Neisseria zoodegmatis</i>	•	•
•		<i>Neobacillus novalis</i> (Synonym: <i>Bacillus novalis</i> )	•	•
•		<i>Nesterenkonia lacusekhoensis</i>	•	•
	•	<i>Nocardia</i>	•	•
		<i>Nocardia abscessus</i>	•	•
		<i>Nocardia abscessus/asiatica</i>		•
		<i>Nocardia abscessus/asteroides/farcinica</i>		•
		<i>Nocardia africana</i>	•	
		<i>Nocardia africana/nova</i>		•
		<i>Nocardia anaemiae</i>	•	•
	•	<i>Nocardia araoensis</i>	•	•
	•	<i>Nocardia arthritidis</i>	•	•
	•	<i>Nocardia asiatica</i>	•	•
		<i>Nocardia asteroides</i>	•	•
		<i>Nocardia beijingensis</i>	•	•
		<i>Nocardia brasiliensis</i>	•	•
		<i>Nocardia brevicatena</i>	•	
		<i>Nocardia carnea</i>	•	•
•		<i>Nocardia cerradoensis</i>	•	•
•		<i>Nocardia coubleae</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Nocardia cyriacigeorgica</i>	•	•
•		<i>Nocardia elegans</i>	•	
	•	<i>Nocardia exalbida</i>	•	•
		<i>Nocardia farcinica</i>	•	•
•		<i>Nocardia flavorosea</i>	•	•
•		<i>Nocardia goodfellowii</i>	•	•
•		<i>Nocardia higoensis</i>	•	•
		<i>Nocardia ignorata</i>	•	
•		<i>Nocardia inohanensis</i>	•	•
•		<i>Nocardia kruczakiae</i>	•	•
•		<i>Nocardia mexicana</i>	•	•
•		<i>Nocardia mikamii</i>	•	•
		<i>Nocardia neocaledoniensis</i>	•	•
•		<i>Nocardia niigatensis</i>	•	•
•		<i>Nocardia ninae</i>	•	•
		<i>Nocardia nova</i>	•	
		<i>Nocardia otitidiscaviarum</i>	•	•
		<i>Nocardia paucivorans</i>	•	•
	•	<i>Nocardia pneumoniae</i>	•	•
		<i>Nocardia pseudobrasiliensis</i>	•	•
•		<i>Nocardia puris</i>	•	•
•		<i>Nocardia rhamnosiphila</i>	•	•
•		<i>Nocardia shimofusensis</i>	•	•
•		<i>Nocardia takedensis</i>	•	•
		<i>Nocardia transvalensis</i>	•	•
•		<i>Nocardia uniformis</i>	•	•
		<i>Nocardia veterana</i>	•	•
•		<i>Nocardia vinacea</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
•		<i>Nocardia vulneris</i>	•	
		<i>Nocardia wallacei</i>	•	•
		<i>Novosphingobium aromaticivorans</i>	•	•
•		<i>Obesumbacterium proteus</i>	•	•
		<i>Oceanobacillus caeni</i>	•	•
		<i>Ochrobactrum</i>	•	•
		<i>Ochrobactrum anthropi</i>	•	•
		<i>Ochrobactrum ciceri</i>	•	
		<i>Ochrobactrum ciceri/intermedium</i>		•
		<i>Ochrobactrum cytisi</i>	•	
		<i>Ochrobactrum gallinifaecis</i>	•	
		<i>Ochrobactrum grignonense</i>	•	
		<i>Ochrobactrum haematophilum</i>	•	
		<i>Ochrobactrum intermedium</i>	•	
		<i>Ochrobactrum lupini</i>	•	
		<i>Ochrobactrum oryzae</i>	•	
		<i>Ochrobactrum pseudintermedium</i>	•	
		<i>Ochrobactrum pseudogrignonense</i>	•	•
		<i>Ochrobactrum rhizosphaerae</i>	•	
		<i>Ochrobactrum thiophenivorans</i>	•	
		<i>Ochrobactrum tritici</i>	•	
		<i>Odoribacter splanchnicus</i>	•	•
		<i>Oerskovia turbata</i>	•	•
•		<i>Okibacterium fritillariae</i>	•	•
		<i>Oligella</i>		•
		<i>Oligella ureolytica</i>	•	•
		<i>Oligella urethralis</i>	•	•
		<i>Ornithobacterium rhinotracheale</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Paenarthrobacter aurescens</i>	•	
		<i>Paenarthrobacter histidinovorans</i>	•	
		<i>Paenarthrobacter ilicis</i>	•	
		<i>Paenarthrobacter nicotinovorans</i>	•	
		<i>Paenarthrobacter nitroguajacolicus</i>	•	
		<i>Paenarthrobacter ureafaciens</i>	•	
		<i>Paenibacillus</i>	•	•
		<i>Paenibacillus agarexedens</i>	•	•
		<i>Paenibacillus alvei</i>	•	•
		<i>Paenibacillus amylolyticus</i>	•	•
		<i>Paenibacillus apiarius</i>	•	•
		<i>Paenibacillus barcinonensis</i>	•	
		<i>Paenibacillus barengoltzii</i>	•	
•		<i>Paenibacillus borealis</i>	•	
•		<i>Paenibacillus cineris</i>	•	•
•		<i>Paenibacillus cookii</i>	•	•
•		<i>Paenibacillus dendritiformis</i>	•	•
		<i>Paenibacillus durus</i>	•	•
•		<i>Paenibacillus favisporus</i>	•	•
		<i>Paenibacillus glucanolyticus</i>	•	•
		<i>Paenibacillus jamilae</i>	•	•
		<i>Paenibacillus lactis</i>	•	•
		<i>Paenibacillus larvae</i>	•	•
		<i>Paenibacillus lautus</i>	•	•
		<i>Paenibacillus macerans</i>	•	•
•		<i>Paenibacillus massiliensis</i>	•	
		<i>Paenibacillus naphthalenovorans</i>	•	•
•		<i>Paenibacillus odorifer</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Paenibacillus pabuli</i>	•	
		<i>Paenibacillus pasadenensis</i>	•	
		<i>Paenibacillus peoriae</i>	•	•
		<i>Paenibacillus polymyxa</i>	•	•
		<i>Paenibacillus provencensis</i>	•	•
		<i>Paenibacillus pueri</i>	•	•
		<i>Paenibacillus thiaminolyticus</i>	•	
		<i>Paenibacillus turicensis</i>	•	
		<i>Paenibacillus validus</i>	•	•
		<i>Paeniclostridium sordellii</i>	•	
		<i>Paeniglutamicibacter gangotriensis</i>	•	
		<i>Paeniglutamicibacter kerguelensis</i>	•	
		<i>Paeniglutamicibacter psychrophenicus</i>	•	
		<i>Paeniglutamicibacter sulfureus</i>	•	
	•	<i>Pandoraea</i>		•
		<i>Pandoraea apista</i>	•	•
•		<i>Pandoraea faecigallinarum</i>	•	
		<i>Pandoraea norimbergensis</i>	•	•
•		<i>Pandoraea oxalativorans</i>	•	•
		<i>Pandoraea pnomenusa</i>	•	•
		<i>Pandoraea pulmonicola</i>	•	•
		<i>Pandoraea sputorum</i>	•	•
•		<i>Pandoraea thiooxydans</i>	•	•
•		<i>Pandoraea vervacti</i>	•	
		<i>Pantoea</i>	•	
		<i>Pantoea agglomerans</i>	•	•
		<i>Pantoea dispersa</i>	•	•
		<i>Parabacteroides</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Parabacteroides distasonis</i>	•	•
		<i>Parabacteroides goldsteinii</i>	•	
		<i>Parabacteroides johnsonii</i>	•	
		<i>Parabacteroides merdae</i>	•	•
		<i>Paraburkholderia fungorum</i>	•	•
		<i>Paraclostridium bifermentans</i>	•	
		<i>Paracoccus</i>	•	•
		<i>Paracoccus denitrificans</i>	•	•
		<i>Paracoccus versutus</i>	•	•
		<i>Paracoccus yeei</i>	•	•
		<i>Paraeggerthella hongkongensis</i>	•	
		<i>Parageobacillus caldoxylosilyticus</i> (Synonym: <i>Geobacillus caldoxylosilyticus</i> )	•	•
		<i>Parageobacillus thermoglucosidasius</i> (Synonym: <i>Geobacillus thermoglucosidasius</i> )	•	•
		<i>Parvimonas micra</i>	•	•
		<i>Pasteurella</i>		•
		<i>Pasteurella aerogenes</i>	•	•
		<i>Pasteurella caballi</i>		•
		<i>Pasteurella canis</i>	•	•
		<i>Pasteurella mairii</i>		•
		<i>Pasteurella multocida</i>	•	•
		<i>Pasteurella testudinis</i>		•
		<i>Pasteurellaceae</i>		•
		<i>Pectobacterium carotovorum</i> ssp <i>carotovorum</i>	•	•
		<i>Pediococcus</i>		•
		<i>Pediococcus acidilactici</i>	•	•
		<i>Pediococcus claussenii</i>	•	
		<i>Pediococcus damnosus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Pediococcus inopinatus</i>	•	•
		<i>Pediococcus parvulus</i>	•	•
		<i>Pediococcus pentosaceus</i>	•	•
		<i>Pedobacter</i>	•	•
		<i>Pedomicrobium australicum</i>	•	
		<i>Pelistega europaea</i>	•	•
		<i>Peptococcus niger</i>	•	•
		<i>Peptoniphilus</i>	•	•
		<i>Peptoniphilus asaccharolyticus</i>	•	•
•		<i>Peptoniphilus coxii</i>	•	•
	•	<i>Peptoniphilus gorbachii</i>	•	•
		<i>Peptoniphilus harei</i>	•	•
		<i>Peptoniphilus indolicus</i>	•	•
	•	<i>Peptoniphilus ivorii</i>	•	•
		<i>Peptoniphilus lacrimalis</i>	•	•
		<i>Peptoniphilus olsenii</i>	•	•
		<i>Peptostreptococcus</i>	•	
		<i>Peptostreptococcus anaerobius</i>	•	•
		<i>Peribacillus butanolivorans</i> (Synonym: <i>Bacillus butanolivorans</i> )	•	
		<i>Peribacillus psychrosaccharolyticus</i> (Synonym: <i>Bacillus psychrosaccharolyticus</i> )	•	•
		<i>Peribacillus simplex</i> (Synonym: <i>Bacillus simplex</i> )	•	•
		<i>Phenylobacterium</i>		•
		<i>Phocaeicola coprophilus</i> (Synonym: <i>Bacteroides coprophilus</i> )	•	
		<i>Phocaeicola dorei</i> (Synonym: <i>Bacteroides dorei</i> )	•	
		<i>Phocaeicola dorei/vulgatus</i> (Synonym: <i>Bacteroides dorei/vulgatus</i> )		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Phocaeicola massiliensis</i> (Synonym: <i>Bacteroides massiliensis</i> )	•	
		<i>Phocaeicola plebeius</i> (Synonym: <i>Bacteroides plebeius</i> )	•	
		<i>Phocaeicola vulgatus</i> (Synonym: <i>Bacteroides vulgatus</i> )	•	•
		<i>Photobacterium damsela</i>	•	•
	•	<i>Photorhabdus</i>		•
•		<i>Photorhabdus akhurstii</i>	•	
•		<i>Photorhabdus asymbiotica</i>		•
•		<i>Photorhabdus asymbiotica</i> ssp <i>asymbiotica</i>	•	
•		<i>Photorhabdus australis</i>	•	•
•		<i>Photorhabdus caribbeanensis</i>	•	•
•		<i>Photorhabdus hainanensis</i>	•	
•		<i>Photorhabdus kayaii</i>	•	
•		<i>Photorhabdus kleinii</i>	•	
•		<i>Photorhabdus laumondii</i>		•
•		<i>Photorhabdus laumondii</i> ssp <i>laumondii</i>	•	
•		<i>Photorhabdus noenieputensis</i>	•	
		<i>Plesiomonas shigelloides</i>	•	•
		<i>Pluralibacter gergoviae</i>	•	•
•		<i>Pluralibacter pyrinus</i>	•	
		<i>Porphyromonas</i>	•	•
		<i>Porphyromonas asaccharolytica</i>	•	•
		<i>Porphyromonas gingivalis</i>	•	•
		<i>Porphyromonas somerae</i>		•
		<i>Porphyromonas uenonis</i>	•	•
		<i>Pragia fontium</i>	•	
		<i>Prevotella</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Prevotella baroniae</i>	•	•
		<i>Prevotella bergensis</i>	•	•
		<i>Prevotella bivia</i>	•	•
		<i>Prevotella buccae</i>	•	•
		<i>Prevotella buccalis</i>	•	•
		<i>Prevotella denticola</i>	•	•
		<i>Prevotella disiens</i>	•	•
		<i>Prevotella intermedia</i>	•	•
		<i>Prevotella loescheii</i>	•	•
		<i>Prevotella melaninogenica</i>	•	•
		<i>Prevotella melaninogenica/bivia</i>		•
		<i>Prevotella multiformis</i>	•	•
		<i>Prevotella nanceiensis</i>	•	•
		<i>Prevotella nigrescens</i>	•	•
		<i>Prevotella oralis</i>	•	•
		<i>Prevotella oris</i>	•	•
		<i>Prevotella ruminicola</i>	•	
		<i>Prevotella salivae</i>	•	•
		<i>Prevotella timonensis</i>	•	•
		<i>Prevotella veroralis</i>	•	•
		<i>Propionibacterium</i>	•	
		<i>Propionibacterium freudenreichii</i>	•	•
		<i>Proteus</i>		•
		<i>Proteus mirabilis</i>	•	•
		<i>Proteus penneri</i>	•	
		<i>Proteus vulgaris</i>	•	•
		<i>Proteus vulgaris/penneri</i>	•	•
		<i>Providencia</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Providencia alcalifaciens</i>	•	•
		<i>Providencia rettgeri</i>	•	•
		<i>Providencia rustigianii</i>	•	•
		<i>Providencia stuartii</i>	•	•
		<i>Pseudaeromonas sharmana</i> (Synonym: <i>Aeromonas sharmana</i> )		•
		<i>Pseudarthrobacter chlorophenolicus</i>	•	
		<i>Pseudarthrobacter oxydans</i>	•	•
		<i>Pseudarthrobacter polychromogenes</i>	•	
		<i>Pseudarthrobacter scleromae</i>	•	
		<i>Pseudarthrobacter sulfonivorans</i>	•	
		<i>Pseudescherichia vulneris</i> (Synonym: <i>Escherichia vulneris</i> )	•	•
		<i>Pseudochromobacterium</i>		•
		<i>Pseudochromobacterium asaccharolyticum</i>	•	
		<i>Pseudochromobacterium kiredjianiae</i>	•	
		<i>Pseudochromobacterium lubricantis</i>	•	
		<i>Pseudochromobacterium lubricantis/saccharolyticum</i>		•
		<i>Pseudochromobacterium saccharolyticum</i>	•	
•		<i>Pseudocitrobacter faecalis</i>	•	•
•		<i>Pseudoclavibacter helvolus</i>	•	•
		<i>Pseudoflavonifractor capillosus</i>	•	•
		<i>Pseudoglutamicibacter albus</i>	•	
		<i>Pseudoglutamicibacter cumminsii</i>	•	•
	•	<i>Pseudomonas</i>	•	•
		<i>Pseudomonas aeruginosa</i>	•	•
		<i>Pseudomonas alcaligenes</i>	•	
		<i>Pseudomonas anguilliseptica</i>	•	•
•		<i>Pseudomonas asplenii</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Pseudomonas brassicacearum</i>	•	
		<i>Pseudomonas caeni</i>	•	
		<i>Pseudomonas chlororaphis</i>	•	•
		<i>Pseudomonas chlororaphis</i> ssp <i>aureofaciens</i>	•	
		<i>Pseudomonas chlororaphis</i> ssp <i>chlororaphis</i>	•	
	•	<i>Pseudomonas citronellolis</i>	•	•
		<i>Pseudomonas citronellolis/delhiensis</i>		•
		<i>Pseudomonas cuatrocieneegasensis</i>	•	•
		<i>Pseudomonas delhiensis</i>	•	
		<i>Pseudomonas extremorientalis</i>	•	•
		<i>Pseudomonas fluorescens</i>	•	•
		<i>Pseudomonas fragi</i>	•	•
	•	<i>Pseudomonas fulva</i>	•	
		<i>Pseudomonas graminis</i>	•	•
		<i>Pseudomonas grimontii</i>	•	
		<i>Pseudomonas knackmussii</i>	•	
		<i>Pseudomonas lini</i>	•	
		<i>Pseudomonas lutea</i>	•	
		<i>Pseudomonas luteola</i>	•	•
		<i>Pseudomonas mendocina</i>	•	
		<i>Pseudomonas migulae</i>	•	•
		<i>Pseudomonas monteilii</i>	•	
		<i>Pseudomonas mosselii</i>	•	
		<i>Pseudomonas mucidolens</i>	•	•
		<i>Pseudomonas nitroreducens</i>	•	•
		<i>Pseudomonas oleovorans</i>	•	•
		<i>Pseudomonas oryzihabitans</i>	•	•
•		<i>Pseudomonas otitidis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Pseudomonas peli</i>	•	•
		<i>Pseudomonas pictorum</i>	•	
		<i>Pseudomonas protegens</i>	•	
		<i>Pseudomonas putida</i>	•	•
		<i>Pseudomonas rhizosphaerae</i>	•	•
		<i>Pseudomonas rhodesiae</i>	•	•
		<i>Pseudomonas salomonii</i>	•	
		<i>Pseudomonas straminea</i>	•	•
		<i>Pseudomonas stutzeri</i>	•	•
		<i>Pseudomonas synxantha</i>	•	•
		<i>Pseudomonas syringae</i>	•	•
		<i>Pseudomonas syringae</i> ssp <i>delphinii</i>	•	•
		<i>Pseudomonas thermotolerans</i>	•	•
		<i>Pseudomonas thivervalensis</i>	•	
		<i>Pseudomonas tolaasii</i>	•	
		<i>Pseudomonas umsogensis</i>	•	
		<i>Pseudomonas veronii</i>	•	•
		<i>Pseudomonas viridiflava</i>	•	•
		<i>Pseudopropionibacterium propionicum</i>	•	•
		<i>Pseudoxanthomonas</i>		•
		<i>Pseudoxanthomonas broegbernensis</i>	•	
		<i>Pseudoxanthomonas daejeonensis</i>	•	
		<i>Pseudoxanthomonas dokdonensis</i>	•	
		<i>Pseudoxanthomonas japonensis</i>	•	
		<i>Pseudoxanthomonas japonensis/mexicana</i>		•
		<i>Pseudoxanthomonas kalamensis</i>	•	
		<i>Pseudoxanthomonas kaohsiungensis</i>	•	
		<i>Pseudoxanthomonas koreensis</i>	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Pseudoxanthomonas mexicana</i>	•	
		<i>Pseudoxanthomonas spadix</i>	•	
		<i>Pseudoxanthomonas taiwanensis</i>	•	
•		<i>Psychrobacillus insolitus</i>	•	
•		<i>Psychrobacillus psychrodurans</i>	•	
		<i>Psychrobacter</i>	•	•
•		<i>Psychrobacter celer</i>	•	
•		<i>Psychrobacter cryohalolentis</i>	•	•
•		<i>Psychrobacter faecalis</i>	•	
•		<i>Psychrobacter immobilis</i>	•	•
		<i>Psychrobacter phenylpyruvicus</i>	•	•
•		<i>Psychrobacter sanguinis</i>	•	
		<i>Rahnella</i>		•
		<i>Rahnella aquatilis</i>	•	•
		<i>Ralstonia</i>	•	•
		<i>Ralstonia insidiosa</i>	•	•
		<i>Ralstonia mannitolilytica</i>	•	•
		<i>Ralstonia pickettii</i>	•	•
		<i>Raoultella</i>	•	•
		<i>Raoultella ornithinolytica</i>	•	•
		<i>Raoultella planticola</i>	•	
		<i>Raoultella terrigena</i>	•	
•		<i>Rathayibacter rathayi</i>	•	•
•		<i>Rathayibacter tritici</i>	•	•
		<i>Rheinheimera texasensis</i>		•
		<i>Rhizobiaceae</i>		•
		<i>Rhizobium</i>	•	
		<i>Rhizobium radiobacter</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Rhizorhapis suberifaciens</i>	•	•
		<i>Rhodobacter sphaeroides</i>	•	
		<i>Rhodococcus baikonurensis</i>	•	
		<i>Rhodococcus coprophilus</i>	•	•
		<i>Rhodococcus erythropolis</i>	•	•
		<i>Rhodococcus fascians</i>	•	•
		<i>Rhodococcus globerulus</i>	•	•
		<i>Rhodococcus hoagii</i>	•	•
		<i>Rhodococcus opacus</i>	•	•
		<i>Rhodococcus rhodnii</i>	•	•
		<i>Rhodococcus rhodochrous</i>	•	•
		<i>Rhodococcus ruber</i>	•	•
		<i>Rhodospirillum rubrum</i>	•	
		<i>Riemerella</i>		•
		<i>Riemerella anatipestifer</i>	•	•
		<i>Riemerella columbina</i>	•	
		<i>Robinsoniella peoriensis</i>	•	•
		<i>Rodentibacter pneumotropicus</i> (Synonym: <i>Pasteurella pneumotropica</i> )	•	•
	•	<i>Roseomonas cervicalis</i>	•	•
•		<i>Roseomonas gilardii</i>	•	•
	•	<i>Roseomonas mucosa</i>	•	•
		<i>Rothia</i>	•	
		<i>Rothia aerea</i>	•	•
	•	<i>Rothia amarae</i>	•	•
		<i>Rothia dentocariosa</i>	•	•
	•	<i>Rothia kristinae</i> (Synonym: <i>Kocuria kristinae</i> )	•	•
		<i>Rothia mucilaginosa</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Rothia nasimurium</i>	•	
		<i>Rothia terrae</i>	•	
		<i>Ruminococcus gnavus</i>	•	•
	•	<i>Salmonella</i>	•	•
	•	<i>Salmonella bongori</i>	•	
		<i>Salmonella enterica</i> ssp <i>arizonae</i>	•	•
		<i>Salmonella enterica</i> ssp <i>diarizonae</i>	•	
		<i>Salmonella enterica</i> ssp <i>enterica</i>	•	•
	•	<i>Salmonella enterica</i> ssp <i>houtenae</i>	•	•
		<i>Salmonella enterica</i> ssp <i>indica</i>	•	
		<i>Salmonella enterica</i> ssp <i>salamae</i>	•	
•		<i>Schaalia hyovaginalis</i>	•	•
		<i>Schaalia meyeri</i> (Synonym: <i>Actinomyces meyeri</i> )	•	•
		<i>Schaalia odontolytica</i> (Synonym: <i>Actinomyces odontolyticus</i> )	•	•
		<i>Schaalia radingae</i> (Synonym: <i>Actinomyces radingae</i> )	•	•
		<i>Schaalia turicensis</i> (Synonym: <i>Actinomyces turicensis</i> )	•	•
		<i>Serratia</i>		•
		<i>Serratia ficaria</i>	•	•
	•	<i>Serratia fonticola</i>	•	•
	•	<i>Serratia grimesii</i>	•	•
		<i>Serratia liquefaciens</i>	•	•
		<i>Serratia marcescens</i>	•	•
		<i>Serratia odorifera</i>	•	
	•	<i>Serratia plymuthica</i>	•	•
	•	<i>Serratia proteamaculans</i>	•	•
•		<i>Serratia quinivorans</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Serratia rubidaea</i>	•	•
•		<i>Serratia ureilytica</i>	•	
		<i>Shewanella algae</i>		•
		<i>Shewanella putrefaciens</i>	•	•
		<i>Shigella</i>	•	•
		<i>Shigella boydii</i>	•	•
		<i>Shigella dysenteriae</i>	•	•
		<i>Shigella flexneri</i>	•	•
		<i>Shigella sonnei</i>	•	•
		<i>Shimwellia blattae</i>	•	•
		<i>Siccibacter turicensis</i>	•	•
		<i>Sinomonas atrocyanea</i>	•	
		<i>Skermanella</i>	•	
		<i>Solibacillus silvestris</i>	•	•
•		<i>Solobacterium moorei</i>	•	•
		<i>Sphaerotilus</i>	•	
		<i>Sphingobacterium daejeonense</i>	•	•
		<i>Sphingobacterium mizutaii</i>	•	
		<i>Sphingobacterium multivorum</i>	•	•
		<i>Sphingobacterium spiritivorum</i>	•	•
		<i>Sphingobacterium thalpophilum</i>	•	•
		<i>Sphingobium chlorophenolicum</i>	•	•
		<i>Sphingobium xenophagum</i>	•	•
		<i>Sphingobium yanoikuyae</i>	•	•
		<i>Sphingomonas</i>	•	•
		<i>Sphingomonas adhaesiva</i>	•	•
		<i>Sphingomonas echinoides</i>	•	•
	•	<i>Sphingomonas koreensis</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Sphingomonas leidyi</i>	•	•
		<i>Sphingomonas melonis</i>	•	•
•		<i>Sphingomonas mucosissima</i>	•	•
		<i>Sphingomonas parapaucimobilis</i>	•	•
		<i>Sphingomonas paucimobilis</i>	•	•
•		<i>Sphingomonas sanguinis</i>	•	
		<i>Sphingomonas trueperi</i>	•	•
	•	<i>Sphingopyxis terrae</i>	•	•
		<i>Staphylococcus</i>		•
•		<i>Staphylococcus argenteus</i>	•	•
		<i>Staphylococcus arlettae</i>	•	•
		<i>Staphylococcus aureus</i>	•	•
•		<i>Staphylococcus aureus</i> ssp <i>anaerobius</i>	•	•
		<i>Staphylococcus aureus</i> ssp <i>aureus</i>	•	
		<i>Staphylococcus auricularis</i>	•	•
		<i>Staphylococcus capitis</i>	•	•
		<i>Staphylococcus capitis</i> ssp <i>capitis</i>	•	
		<i>Staphylococcus capitis</i> ssp <i>ureolyticus</i>	•	
		<i>Staphylococcus caprae</i>	•	•
		<i>Staphylococcus caprae/capitis</i>		•
		<i>Staphylococcus carnosus</i>		•
		<i>Staphylococcus carnosus</i> ssp <i>carnosus</i>	•	
		<i>Staphylococcus carnosus</i> ssp <i>utilis</i>	•	
		<i>Staphylococcus chromogenes</i>	•	•
		<i>Staphylococcus cohnii</i>		•
		<i>Staphylococcus cohnii</i> ssp <i>cohnii</i>	•	
		<i>Staphylococcus cohnii</i> ssp <i>urealyticus</i>	•	
•		<i>Staphylococcus condimentii</i>	•	•



New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Staphylococcus delphini</i>	•	•
		<i>Staphylococcus delphini/intermedius/pseudintermedius</i>		•
		<i>Staphylococcus epidermidis</i>	•	•
		<i>Staphylococcus equorum</i>	•	•
		<i>Staphylococcus felis</i>	•	•
		<i>Staphylococcus gallinarum</i>	•	•
		<i>Staphylococcus haemolyticus</i>	•	•
		<i>Staphylococcus hominis</i>	•	•
		<i>Staphylococcus hominis ssp hominis</i>	•	
		<i>Staphylococcus hominis ssp novobiosepticus</i>	•	
		<i>Staphylococcus hyicus</i>	•	•
		<i>Staphylococcus intermedius</i>	•	•
		<i>Staphylococcus kloosii</i>	•	•
		<i>Staphylococcus lentus</i>	•	•
		<i>Staphylococcus lugdunensis</i>	•	•
		<i>Staphylococcus lutrae</i>	•	
		<i>Staphylococcus muscae</i>	•	•
		<i>Staphylococcus pasteurii</i>	•	•
		<i>Staphylococcus pasteurii/warneri</i>		•
•		<i>Staphylococcus petrasii</i>		•
•		<i>Staphylococcus petrasii ssp croceilyticus</i>	•	
•		<i>Staphylococcus petrasii ssp jettensis</i>	•	
•		<i>Staphylococcus petrasii ssp petrasii</i>	•	
		<i>Staphylococcus pettenkoferi</i>	•	•
		<i>Staphylococcus piscifermentans</i>	•	•
		<i>Staphylococcus pseudintermedius</i>	•	•
		<i>Staphylococcus saccharolyticus</i>	•	•
		<i>Staphylococcus saprophyticus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Staphylococcus saprophyticus</i> ssp <i>saprophyticus</i>	•	
		<i>Staphylococcus schleiferi</i>	•	•
		<i>Staphylococcus schleiferi</i> ssp <i>coagulans</i>	•	
		<i>Staphylococcus schleiferi</i> ssp <i>schleiferi</i>	•	
		<i>Staphylococcus sciuri</i>	•	•
		<i>Staphylococcus simulans</i>	•	•
		<i>Staphylococcus succinus</i>	•	•
		<i>Staphylococcus succinus</i> ssp <i>casei</i>	•	
		<i>Staphylococcus succinus</i> ssp <i>succinus</i>	•	
		<i>Staphylococcus vitulinus</i>	•	•
		<i>Staphylococcus warneri</i>	•	•
		<i>Staphylococcus xylosum</i>	•	•
		<i>Stenotrophomonas</i>	•	•
		<i>Stenotrophomonas acidaminiphila</i>	•	•
		<i>Stenotrophomonas chelatiphaga</i>	•	
		<i>Stenotrophomonas humi</i>	•	
		<i>Stenotrophomonas koreensis</i>	•	
		<i>Stenotrophomonas maltophilia</i>	•	•
		<i>Stenotrophomonas nitritireducens</i>	•	
		<i>Stenotrophomonas rhizophila</i>	•	•
		<i>Stenotrophomonas terrae</i>	•	
	•	<i>Streptococcus</i>	•	•
		<i>Streptococcus acidominimus</i>	•	•
		<i>Streptococcus agalactiae</i>	•	•
		<i>Streptococcus alactolyticus</i>	•	•
		<i>Streptococcus anginosus</i>	•	•
		<i>Streptococcus anginosus/constellatus</i>	•	•
		<i>Streptococcus anginosus/constellatus/gordonii</i>		•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
	•	<i>Streptococcus australis</i>	•	•
		<i>Streptococcus australis/parasanguinis</i>		•
		<i>Streptococcus canis</i>	•	•
		<i>Streptococcus canis/equi</i>		•
		<i>Streptococcus constellatus</i>	•	•
		<i>Streptococcus constellatus ssp constellatus</i>	•	
		<i>Streptococcus constellatus ssp pharyngis</i>	•	
		<i>Streptococcus constellatus/intermedius</i>		•
		<i>Streptococcus cristatus</i>	•	•
		<i>Streptococcus devriesei</i>	•	•
		<i>Streptococcus didelphis</i>	•	
		<i>Streptococcus downei</i>	•	•
		<i>Streptococcus dysgalactiae</i>	•	•
		<i>Streptococcus dysgalactiae ssp dysgalactiae</i>	•	•
		<i>Streptococcus dysgalactiae ssp equisimilis</i>	•	•
		<i>Streptococcus dysgalactiae/pyogenes</i>		•
		<i>Streptococcus entericus</i>	•	
		<i>Streptococcus equi</i>		•
		<i>Streptococcus equi ssp equi</i>	•	•
		<i>Streptococcus equi ssp ruminatorum</i>	•	
		<i>Streptococcus equi ssp zooepidemicus</i>	•	•
		<i>Streptococcus equinus</i>	•	•
		<i>Streptococcus gallinaceus</i>	•	
		<i>Streptococcus gallolyticus</i>	•	•
		<i>Streptococcus gallolyticus ssp gallolyticus</i>	•	•
		<i>Streptococcus gallolyticus ssp macedonicus</i>	•	•
		<i>Streptococcus gallolyticus ssp pasteurianus</i>	•	•
		<i>Streptococcus gordonii</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Streptococcus hyointestinalis</i>	•	•
	•	<i>Streptococcus hyovaginalis</i>	•	•
		<i>Streptococcus infantarius</i>		•
		<i>Streptococcus infantarius</i> ssp <i>coli</i> (Synonym: <i>Streptococcus lutetientis</i> )	•	
		<i>Streptococcus infantarius</i> ssp <i>infantarius</i>	•	•
		<i>Streptococcus infantis</i>	•	•
		<i>Streptococcus iniae</i>	•	•
		<i>Streptococcus intermedius</i>	•	•
		<i>Streptococcus marimammalium</i>	•	
		<i>Streptococcus massiliensis</i>	•	
		<i>Streptococcus mitis</i>	•	•
		<i>Streptococcus mitis/oralis</i>		•
		<i>Streptococcus mitis/oralis/pneumoniae</i>		•
		<i>Streptococcus mitis/oralis/pseudopneumoniae</i>		•
		<i>Streptococcus mitis/pneumoniae</i>		•
		<i>Streptococcus mutans</i>	•	•
		<i>Streptococcus oralis</i>	•	•
		<i>Streptococcus orisratti</i>	•	
		<i>Streptococcus ovis</i>	•	•
		<i>Streptococcus parasanguinis</i>	•	•
	•	<i>Streptococcus parauberis</i>	•	•
	•	<i>Streptococcus peroris</i>	•	•
		<i>Streptococcus phocae</i>	•	
		<i>Streptococcus pluranimalium</i>	•	•
		<i>Streptococcus pneumoniae</i>	•	•
	•	<i>Streptococcus porcinus</i>	•	•
		<i>Streptococcus pseudopneumoniae</i>	•	
		<i>Streptococcus pseudoporcinus</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Streptococcus pyogenes</i>	•	•
		<i>Streptococcus salivarius</i>	•	•
		<i>Streptococcus salivarius</i> ssp <i>salivarius</i>	•	
		<i>Streptococcus salivarius</i> ssp <i>thermophilus</i>	•	•
		<i>Streptococcus salivarius</i> / <i>vestibularis</i>		•
		<i>Streptococcus sanguinis</i>	•	•
	•	<i>Streptococcus sinensis</i>	•	•
		<i>Streptococcus sobrinus</i>	•	•
		<i>Streptococcus suis</i>	•	•
		<i>Streptococcus thoralensis</i>	•	•
		<i>Streptococcus uberis</i>	•	•
•		<i>Streptococcus urinalis</i>	•	•
		<i>Streptococcus vestibularis</i>	•	
		<i>Streptomyces</i>	•	
		<i>Streptomyces albobacillus</i>	•	•
		<i>Streptomyces fradiae</i>	•	•
		<i>Streptomyces griseus</i>	•	•
	•	<i>Sutterella wadsworthensis</i>	•	•
		<i>Suttonella indologenes</i>	•	•
•		<i>Tannerella forsythia</i>	•	•
		<i>Tatlockia</i>		•
		<i>Tatlockia maceachernii</i>	•	
		<i>Tatlockia micdadei</i>	•	•
		<i>Tatumella ptyseos</i>	•	•
		<i>Taylorella asinigenitalis</i>	•	•
		<i>Taylorella equigenitalis</i>	•	•
		<i>Terrabacter</i>	•	
•		<i>Terribacillus</i> spp	•	

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Terrisporobacter glycolicum</i>	•	
		<i>Tetragenococcus halophilus</i>	•	•
		<i>Thiocystis</i>	•	
•		<i>Tissierella praeacuta</i>	•	•
		<i>Trueperella bernardiae</i>	•	•
		<i>Trueperella bialowiezense</i>	•	
		<i>Trueperella bonasi</i>	•	
		<i>Trueperella pyogenes</i>	•	•
		<i>Tsukamurella</i>	•	
		<i>Tsukamurella paurometabola</i>	•	•
		<i>Tsukamurella pulmonis</i>	•	
		<i>Tsukamurella tyrosinosolvens</i>	•	
		<i>Vagococcus fluvialis</i>	•	•
	•	<i>Variovorax paradoxus</i>	•	•
		<i>Veillonella</i>	•	•
		<i>Veillonella atypica</i>	•	•
		<i>Veillonella dispar</i>	•	•
		<i>Veillonella parvula</i>	•	
		<i>Vibrio</i>	•	•
		<i>Vibrio alginolyticus</i>	•	•
		<i>Vibrio anguillarum</i>	•	
		<i>Vibrio campbellii</i>	•	
		<i>Vibrio cholerae</i>	•	•
		<i>Vibrio cholerae/mimicus</i>		•
		<i>Vibrio cincinnatiensis</i>	•	
		<i>Vibrio fluvialis</i>	•	
		<i>Vibrio furnissii</i>	•	•
		<i>Vibrio harveyi</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Vibrio metschnikovii</i>	•	
		<i>Vibrio mimicus</i>	•	•
		<i>Vibrio natriegens</i>	•	
		<i>Vibrio navarrensis</i>	•	
		<i>Vibrio orientalis</i>	•	
		<i>Vibrio parahaemolyticus</i>	•	•
		<i>Vibrio proteolyticus</i>	•	
		<i>Vibrio vulnificus</i>	•	•
•		<i>Virgibacillus halodenitrificans</i>	•	
		<i>Virgibacillus pantothenicus</i>	•	•
		<i>Virgibacillus proomii</i>	•	•
		<i>Weeksella virosa</i>	•	•
		<i>Weissella confusa</i>	•	•
		<i>Weissella viridescens</i>	•	•
		<i>Winkia neuui</i> (Synonym: <i>Actinomyces neuui</i> )	•	•
		<i>Winkia neuui</i> ssp <i>anitrata</i> (Synonym: <i>Actinomyces neuui</i> ssp <i>anitratus</i> )	•	•
		<i>Winkia neuui</i> ssp <i>neuui</i> (Synonym: <i>Actinomyces neuui</i> ssp <i>neuui</i> )	•	•
		<i>Xenorhabdus</i>	•	•
•		<i>Xenorhabdus miraniensis</i>	•	
	•	<i>Xenorhabdus nematophila</i>	•	•
	•	<i>Yersinia</i>	•	•
		<i>Yersinia aldovae</i>	•	•
•		<i>Yersinia bercovieri</i>	•	•
		<i>Yersinia enterocolitica</i>	•	•
		<i>Yersinia frederiksenii</i>	•	•
		<i>Yersinia intermedia</i>	•	•

New in V4.17	Amended in V4.17	Taxon	Reference Spectra	Super Spectra
		<i>Yersinia kristensenii</i>	•	•
•		<i>Yersinia massiliensis</i>	•	
		<i>Yersinia mollaretii</i>	•	•
		<i>Yersinia pestis</i>	•	•
		<i>Yersinia pseudotuberculosis</i>	•	•
•		<i>Yersinia rohdei</i>	•	•
		<i>Yersinia ruckeri</i>	•	•
•		<i>Yersinia similis</i>	•	•
		<i>Yokenella regensburgei</i>	•	•
•		<i>Zymomonas mobilis</i>		•
•		<i>Zymomonas mobilis</i> ssp <i>francensis</i>	•	
•		<i>Zymomonas mobilis</i> ssp <i>mobilis</i>	•	
•		<i>Zymomonas mobilis</i> ssp <i>pomaceae</i>	•	



# A

## Appendix - Protocol to Use and Store *E. coli* ATCC® 8739™ for Calibration

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***IMPORTANT: Follow the instructions provided by the commercial supplier of *E. coli* ATCC® 8739™ concerning the number of passages that can be made from the stock strain.***

Depending on the number of passages from the *E. coli* ATCC® 8739™ stock strain, perform subculture(s) to have your daily, fresh calibration plate.

The *E. coli* ATCC® 8739™ strain for the calibration should be incubated for 18 to 24 hours at 35°C ± 2°C on blood agar under aerobic atmosphere.

Media to be used:

- Columbia agar + 5% sheep blood.
- Trypticase soy agar + 5% sheep blood.

# Revision History

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This section contains a summary of changes made to each released revision of this document starting with part number 161150-1674 - A.

**Change type categories:**

N/A	Not applicable (First publication)
Correction	Correction of documentation anomalies
Technical change	Addition, revision and/or removal of information related to the product
Administrative	Implementation of non-technical changes noticeable to the user

- Note:*
- *Minor typographical, grammar, and formatting changes are not included in the revision history.*
  - *Not all versions may be available in all languages.*

Release Date	Part Number	Change Type	Change Summary
2021-03	161150-1674 - A	N/A	First publication



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