



Microsart® RESEARCH Bacteria

Rapid detection of total bacteria within 2½ h

User Benefits

- >95 % of all known bacteria detected in one test
- fast: only 2½ h time-to-result
- reliable: highly specific TaqMan® probes
- easy to use
- less pipetting effort
- no sample preparation mandatory



Product Information

Microsart® RESEARCH Bacteria is used for fast and reliable direct detection of bacterial contamination in cell cultures, cell culture supernatants and cell media components in research and development or whenever there is no need for regulation conform testing (i.e. according to EP/USP/JP).

Kit Components and storage

Each kit contains all reagents for 25 or 100 reactions. 4 color-coded tubes, with master mix, buffer, positive control and negative control, make the handling as simple as possible.

The expiry date and the storage conditions of the unopened package are noted on the package label. The kit components are stored until use at +2°C to +8°C and must be stored after rehydration or opening at < -18°C.

Please note: The master mix, also called RESEARCH Bacteria Mix, should be protected from light all the time.

Test Principle

Microsart® RESEARCH Bacteria utilizes real-time PCR. The detection procedure can be performed within 2½ hours, including less than ½ hour hands-on time. In contrast to the detection by cell cultivation method, samples do not need to contain vital bacteria.

The assay can be performed with any type of real-time PCR cyclers able to detect the fluorescence dyes FAM™ and ROX™.

Bacteria are specifically detected by amplifying a highly conserved 16S rRNA coding region in the bacterial genome. The amplification is detected at 520 nm (FAM™ channel). The kit includes primer and FAM™ labeled probes which allow the specific detection of more than 95 % of all known bacterial species so far described as contaminants of cell cultures and media components. Eukaryotic DNA is not amplified by this primer | probe system.

False negative results due to PCR inhibitors or improper DNA extraction are detected by the internal amplification control which is part of the PCR master mix. The amplification of the internal amplification control is detected at 610 nm (ROX™ channel).

Order Information

Order No.	Description	Quantity
SMB95-1009	Microsart® RESEARCH Bacteria	25 reactions
SMB95-1010	Microsart® RESEARCH Bacteria	100 reactions

available from stock, storage condition 2°C-8°C

Related Products

DNA Extraction Kits

Order No.	Description	Quantity
SMB95-2001	Microsart® Bacteria Extraction	50 extractions
SMB95-2003	Microsart® AMP Extraction (only for Mycoplasma qPCR)	50 extractions

Detection Kits for qPCR

Order No.	Description	Quantity
SMB95-1001/1002	Microsart® AMP Mycoplasma	25/100 reactions
SMB95-1003/1004	Microsart® ATMP Mycoplasma	25/100 reactions
SMB95-1005/1006	Microsart® RESEARCH Mycopl.	25/100 reactions
SMB95-1007/1008	Microsart® ATMP Bacteria	10 patients/100 reactions

Microsart® Validation Standard according to EP 2.6.1, EP 2.6.7, USP <63> and USP <71>
3 vials each, 10 CFU/vial for Mycoplasma species,
<100 CFU/vial for other bacteria.

Order No.	Description
SMB95-2011	<i>Mycoplasma arginini</i>
SMB95-2012	<i>Mycoplasma orale</i>
SMB95-2013	<i>Mycoplasma gallisepticum</i>
SMB95-2014	<i>Mycoplasma pneumoniae</i>
SMB95-2015	<i>Mycoplasma synoviae</i>
SMB95-2016	<i>Mycoplasma fermentans</i>
SMB95-2017	<i>Mycoplasma hyorhinis</i>
SMB95-2018	<i>Acholeplasma laidlawii</i>
SMB95-2019	<i>Spiroplasma citri</i>
SMB95-2005	<i>Bacillus subtilis</i>
SMB95-2006	<i>Pseudomonas aeruginosa</i>
SMB95-2007	<i>Micrococcus luteus</i> <i>Kocuria rhizophila</i>
SMB95-2008	<i>Clostridium sporogenes</i>
SMB95-2009	<i>Bacteroides vulgatus</i>
SMB95-2010	<i>Staphylococcus aureus</i>

Microsart® Calibration Reagent, 1 vial, 10⁸ genomes/vial

Order No.	Description
SMB95-2021	<i>Mycoplasma arginini</i>
SMB95-2022	<i>Mycoplasma orale</i>
SMB95-2023	<i>Mycoplasma gallisepticum</i>
SMB95-2024	<i>Mycoplasma pneumoniae</i>
SMB95-2025	<i>Mycoplasma synoviae</i>
SMB95-2026	<i>Mycoplasma fermentans</i>
SMB95-2027	<i>Mycoplasma hyorhinis</i>
SMB95-2028	<i>Acholeplasma laidlawii</i>
SMB95-2029	<i>Spiroplasma citri</i>
SMB95-2030	<i>Bacillus subtilis</i>
SMB95-2031	<i>Pseudomonas aeruginosa</i>
SMB95-2032	<i>Micrococcus luteus</i> <i>Kocuria rhizophila</i>
SMB95-2033	<i>Clostridium sporogenes</i>
SMB95-2034	<i>Bacteroides vulgatus</i>
SMB95-2035	<i>Staphylococcus aureus</i>

For PCR support and recommendation please contact PCR@Sartorius.com.

User-supplied equipment and material

- DNA-free PCR reaction tubes for the specific qPCR device
- Microcentrifuge for 1.5 ml reaction tubes, i.e. Centrisart A-14, Order No. A-14-1EU
- Pipettes with DNA-free filter tips to prepare and dispense the reaction mix (10, 100 and 1000 µl)
- Optional: For DNA extraction we recommend our Microsart[®] Bacteria Extraction kit, Order No. SMB95-2001
- qPCR device with filter sets for the detection of the dyes FAM[™] and ROX[™] and suitable for 25 µl PCR reaction volumes*

* Sartorius collaborates with Agilent. In case there is no access given to a qPCR instrument, Agilent provides the AriaMx qPCR System for comprehensive testing of Sartorius' qPCR kits.



AriaMx Real-time PCR System from Agilent

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