

## MRS-Agar

Version: 01/2020  
M&S item numbers: 4061 (25 x 20 ml) and 5061 (4 x 250 ml)  
Profile: Glass tubes and polycarbonate bottles  
Color: Beige  
Storage: Dark and dry at 4 – 12 °C  
Shelf life: 8 months

### Description and application range

MRS-Agar (acc. to De Man, Rogosa and Sharpe, 1960) is used for the detection and determination of lactobacilli in beverages and foodstuffs. The growth of lactobacilli is known to be supported specifically by Magnesium, Manganese, Acetat and Polysorbate. Due to the low selectivity of this medium also non-lactobacilli are able to develop. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd 1:2018 standard.

### Typical composition

Enzymatic digest of casein	10.0 g/l
Meat extract	8.0 g/l
Yeast extract	4.0 g/l
Dextrose	20.0 g/l
Sodium acetate	5.0 g/l
Dipotassiumhydrogenphosphate	2.0 g/l
Diammoniumhydrogencitrate	2.0 g/l
Magnesiumsulfate	0.2 g/l
Manganesesulfate	0.02 g/l
Tween 80	1.0 g/l
Bacteriological Agar	15.0 g/l

Final pH: 5.7 ± 0.2 at 25 °C

### Microbiological quality control

#### Bacterial contamination

Incubation: aerobically at room temperature for 3 days, specification: no growth

#### Productivity quantitative analysis

Incubation: microaerophilic at 30 ± 1 °C for 72 ± 3 h, approx. inoculum: 80 – 120 CFU

Microorganism	Test strain	Specification	Appearance
<i>Lactobacillus sakei</i>	WDCM 00015	$P_R \geq 0,7$	Beige, small
<i>Lactobacillus lactis</i>	WDCM 00016	$P_R \geq 0,7$	Beige, small
<i>Pediococcus damnosus</i>	DSM 20331	Growth	Beige

**Selectivity** qualitative analysis

Incubation: microaerophilic at  $30 \pm 1$  °C for  $72 \pm 3$  h, approx. inoculum: 10,000 – 1,000,000 CFU

<b>Microorganism</b>	<b>Test strain</b>	<b>Specification</b>	<b>Appearance</b>
<i>Escherichia coli</i>	WDCM 00012	Inhibited growth	-
<i>Saccharomyces cerevisiae</i>	DSM 70449	Full inhibition	-