



MRS-NPS

Version: 11/2022
M&S Item numbers: 1110 (50 / PK) und 1110-H (100 / PK)
Profile: Dehydrated nutrient pad sets 50 mm in petri dishes, sterile
Color: Beige
Storage: Dark and dry at room temperature
Shelf life: 2 years after sterilization

Description and application range

MRS-NPS are used for detection and determination of colony count of lactobacilli in foodstuffs and other samples. The formulation is acc. to De Man, Rogosa and Sharpe. The growth of lactobacilli is known to be supported specifically by magnesium, manganese, acetate and polysorbate (Tween 80). Due to the low selectivity of this medium also non-lactobacilli can develop. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd 2:2020 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
Di-Potassiumhydrogenphosphate	1.0 g/l
Di-Ammoniumhydrogencitrate	1.0 g/l
Magnesium sulfate	0.2 g/l
Manganese sulfate	0.04 g/l
Tween 80	1.0 g/l
Actidione (Cycloheximide)	0.002 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: 50 – 120 CFU

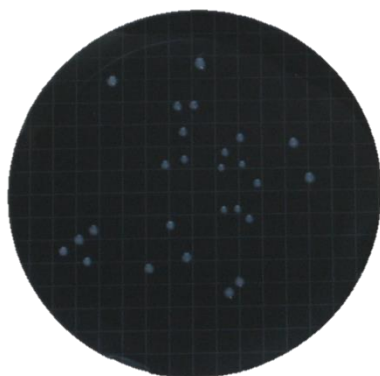
Microorganism	Test strain	Specification	Appearance
<i>Lactobacillus sakei</i>	WDCM 00015	$P_R \geq 0.7$	Beige small colonies
<i>Lactobacillus lactis</i>	WDCM 00016	$P_R \geq 0.7$	Beige small colonies
<i>Pediococcus pentosaceus</i>	WDCM 00158	$P_R \geq 0.7$	Beige colonies
<i>Pediococcus damnosus</i>	WDCM 00022	Growth	Beige small colonies
<i>Lactobacillus plantarum</i>	DSM 20205	Growth	Whitish colonies
<i>Leuconostoc pseudomesent.</i>	DSM 20193	Growth	Beige small colonies
<i>Lactobacillus lindneri</i>	DSM 20690	Growth	Beige small colonies
<i>Acetobacter aceti</i>	DSM 2002	Growth	Brown small colonies
<i>Saccharomyces cerevisiae</i>	DSM 70449	No growth	No growth

P_R productivity rate (recovery rate)

Selectivity qualitative analysis

Incubation: microaerophilic 72 ± 3 h at 30 ± 1 °C, approx. inoculum: 10.000 - 1.000.000 CFU

Microorganism	Test strain	Specification	Appearance
<i>Escherichia coli</i>	WDCM 00012	Inhibited growth	Inhibited growth



Lactobacillus lactis after 72h at 30°C