

MacConkey-NPS

Version: 01/2020
M&S item numbers: 1098 (50 / PK) and 1098-H (100 / PK)
Profile: Dehydrated nutrient pad sets 50 mm in petri dishes, sterile
Color: Pink
Storage: Dark and dry at room temperature
Shelf life: 1 year after sterilization

Description and application range

MacConkey-NPS are used for the detection and isolation of coliform bacteria in water, food and biological specimens. The formulation is slightly selective and corresponds to the medium recommended by the World Health Organization (1963) for the bacteriological examination of drinking water. Gram positive bacteria are inhibited by bile salts and crystal violet, whereas gram-negative organisms show good growth. Bacteria that are able to metabolize Lactose grow in pink to red colored colonies due to their ability of forming acid and the pH indicator neutral red. Bacteria not metabolizing lactose will grow colorless. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd 1:2018 standard.

Typical composition

Enzymatic digest of Gelatin	17.0 g/l
Enzymatic digest of Casein	1.5 g/l
Enzymatic digest of Meat	1.5 g/l
Lactose	10.0 g/l
NaCl	5.0 g/l
Bile salts	1.5 g/l
Neutral Red	0.03 g/l
Crystal Violet	0.001 g/l

Final pH: 7.1 ± 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: aerobically at 35 ± 2 °C for 21 ± 3 h, approx. inoculum: 80 – 120 CFU

Microorganism	Test strain	Specification	Appearance
<i>Escherichia coli</i>	WDCM 00012	$P_R \geq 0,5$	Pink to red colonies
<i>Enterobacter aerogenes</i>	WDCM 00175	$P_R \geq 0,5$	Pink to red colonies

Selectivity qualitative analysis

Incubation: aerobically at 35 ± 2 °C for 21 ± 3 h, approx. inoculum: 10,000 – 1,000,000 CFU

Microorganism	Test strain	Specification	Appearance
<i>Enterococcus faecalis</i>	WDCM 00009	Partial inhibition	Light pink
<i>Staphylococcus aureus</i>	WDCM 00034	Inhibition	Now growth

Specificity qualitative analysis

Incubation: aerobically at 35 ± 2 °C for 21 ± 3 h, approx. inoculum: 80 – 120 CFU

Microorganism	Test strain	Specification	Appearance
<i>Pseudomonas aeruginosa</i>	WDCM 00024	Growth	Beige