

## MRS-NPS

Version: 10/2017  
M&S item numbers: 1110 (50 / PK) and 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. 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 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 ml/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 ± 4 h, approx. inoculum: 80 – 120 CFU

| Microorganism               | Test strain | Specification  | Appearance |
|-----------------------------|-------------|----------------|------------|
| <i>Lactobacillus sakei</i>  | WDCM 00015  | $P_R \geq 0,7$ | Beige      |
| <i>Lactobacillus lactis</i> | WDCM 00016  | $P_R \geq 0,7$ | Beige      |

**Selectivity** qualitative analysis

Incubation: microaerophilic at  $30 \pm 2$  °C for  $72 \pm 4$  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         | Full inhibition      | -                 |