

LMX Broth

Product: LMX Broth

Catalogue Number: i23219

Content: 500 g

Use: For the simultaneous detection of total coliforms and *E.coli* in water, food and dairy products by the fluorogenic procedure.

Principle: contains phosphate buffer to guarantee a high growth rate for total coliforms. Lauryl sulfate largely inhibits the accompanying Gram-positive flora. By adding the chromogenic substrate 5-bromo-4-chloro-3-indolyl β -D-galactopyranoside, which is cleaved by coliforms and the fluorogenic substrate 4-methylumbelliferyl- β -D-glucuronide, which is highly specific for *E.coli*, the simultaneous detection of total coliforms and *E.coli* is possible. A color change of the broth from yellow to blue-green indicates the presence of coliforms. In addition a blue fluorescence under long-wave UV light permits the rapid detection of *E.coli*. As tryptophan is added to the broth, the indole reaction is easily done by adding Kovacs reagent. The formation of a red ring additionally confirms the presence of *E.coli*. The enzyme synthesis is amplified by 1-isopropyl- β -D-1-thio-galactopyranoside and increases the β -D-galactosidase activity.

Composition g / l

Tryptose	5.000
Sodium chloride	3.000
Sodium	1.000
Tryptophan	1.000
diPotassium hydrogen phosphate	2.700
Potassium hydrogen phosphate	2.000
Lauryl sulfate sodium salt	0.100
X-GAL	0.0800
MUG	0.050
IPTG	0.100

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Dehydrated Appearance: Cream to light yellow, homogeneous, free-flowing.

Solution: 1.7% solution, soluble in purified water.

Prepared Appearance: Cream to light yellow.

pH at 25 °C: 6.8 ± 0.2

Storage: Store at 15-30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label

Shelf life: If stored under recommended conditions the unopened container has a shelf-life of 3 years after day of production (see expiry date on the label).