

IVD in vitro diagnosticum - For professional use only



EMB Agar (Eosin Methylene-blue Lactose Sucrose Agar)

EMB agar

Cat. No. 1.01347.0500
(500 g)

Selective agar proposed by HOLT-HARRIS and TEAGUE (1916) for the detection and isolation of pathogenic Enterobacteriaceae.

See also General Instruction of Use

Warnings and precautions see www.merck-chemicals.com

Principle

Microbiological method

Mode of Action

The lactose and sucrose contained in this medium allow lactose- and sucrose-negative salmonellae and shigellae to be distinguished from lactose-positive coliform organisms and lactose-negative, sucrose-positive, accompanying flora (e.g. *Proteus vulgaris*, *Citrobacter*, *Aeromonas hydrophila*). The growth of undesired accompanying microorganisms, particularly Gram-positive bacteria, is largely inhibited by the dyes present in the medium.

Typical Composition (g/litre)

Peptones 10.0; di-potassium hydrogen phosphate 2.0; lactose 5.0; sucrose 5.0; eosin Y, yellowish 0.4; methylene blue 0.07; agar-agar 13.5.

Preparation and Storage

Cat. No. 1.01347. EMB Agar (Eosin Methylene-blue Lactose Sucrose Agar) (500 g)

Usable up to the expiry date when stored dry and tightly closed at +15 to +25°C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25°C.

Suspend 36 g/litre, autoclave (15 min at 121 °C), pour plates.

pH: 7.1 ± 0.2 at 25 °C.

The plates are clear and reddish-brown to violet-brown.

Specimen

e.g. Stool. Urine.

Clinical specimen collection, handling and processing, see general instructions of use.

Experimental Procedure and Evaluation

Inoculate by spreading the sample material thinly on the surface of the plates.

Incubation: 24 hours at 35 °C aerobically.

Appearance of Colonies	Microorganisms
Translucent, amber coloured	Salmonella, Shigella
Greenish, metallic sheen in reflected light, blue-black centre in transmitted light	Escherichia coli
Colonies are larger than those of E. coli, mucoid, confluent, gray-brown centre in transmitted light	Enterobacter, Klebsiella and others

Quality control

Test strains	Growth	Colony colour	Metallic sheen
Escherichia coli ATCC 25922	good / very good	violet	+
Escherichia coli ATC 11775	good / very good	violet	+

Escherichia coli 194	good / very good	violet	+
Escherichia coli ATCC 23716	good / very good	violet	+
Escherichia coli ATCC 8739	good / very good	violet	+
Enterobacter cloacae ATCC 13047	fair / very good	pink, dark centre	+ / -
Salmonella typhimurium ATCC 14028	good / very good	colourless, transparent	-
Shigella flexneri ATCC 12022	good / very good	colourless, transparent	-
Bacillus cereus ATCC 11778	none / poor		-
Klebsiella pneumoniae ATCC 13883	fair / very good	pink, dark centre	+ / -



E.coli, Serratia marcescens

Literature

HOLT-HARRIS, J.E., a. TEAGUE, O.A.: A new culture medium for the isolation of Bacillus typhosus from stools. - **J. Infect. Dis.**, **18**; 596-600 (1916).

