

# EMB Agar (Eosin Methylene-blue Lactose Sucrose Agar)

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



*in vitro diagnosticum –  
For professional use only*



## 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

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.

See also *General Instruction of Use*  
Warnings and precautions see *ChemDAT®*  
([www.chemdat.info](http://www.chemdat.info))

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

## 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).

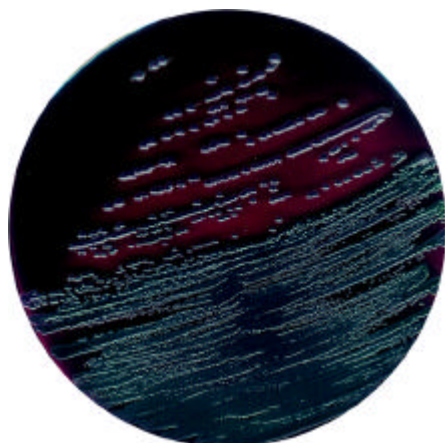
## Ordering Information

Product	Merck Cat. No.	Pack size
EMB Agar (Eosin Methylene-blue Lactose Sucrose Agar)	1.01347.0500	500 g

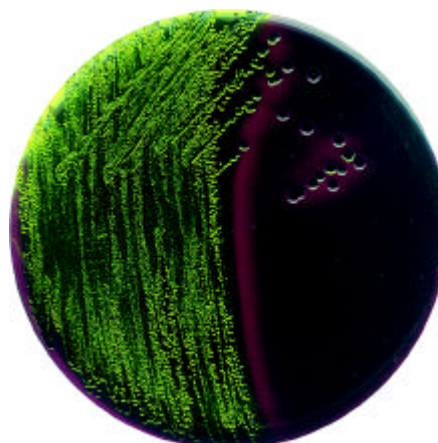
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## Quality control

Test strains	Growth	Colony colour	Metallic sheen
<i>Escherichia coli</i> ATCC 25922	good / very good	violet	+
<i>Escherichia coli</i> ATC 11775	good / very good	violet	+
<i>Escherichia coli</i> 194	good / very good	violet	+
<i>Escherichia coli</i> ATCC 23716	good / very good	violet	+
<i>Escherichia coli</i> ATCC 8739	good / very good	violet	+
<i>Enterobacter cloacae</i> ATCC 13047	fair / very good	pink, dark centre	+ / -
<i>Salmonella typhimurium</i> ATCC 14028	good / very good	colourless, transparent	-
<i>Shigella flexneri</i> ATCC 12022	good / very good	colourless, transparent	-
<i>Bacillus cereus</i> ATCC 11778	none / poor		-
<i>Klebsiella pneumoniae</i> ATCC 13883	fair / very good	pink, dark centre	+ / -



*Enterobacter cloacae*  
ATCC 13047



*Escherichia coli*  
ATCC 25922