

Endo Agar

Catalog : HB0138-3-500

Endo Agar is used for detection of total coliforms in drinking water and water resource through membrane filtration.

Approximate Formula:

Ingredients	gm/liter
Peptic Digest of Animal Tissue	10.0
Dipotassium Hydrogen Phosphate	2.5
Lactose	10.0
Sodium Sulphite Anhydrous	3.3
Basic Fuchsin	0.3
Agar	12.5
Final pH7.4±0.2 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 39.0g of the medium and 20ml absolute ethyl alcohol in 980ml of distilled water. Mix thoroughly. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder, sterilize in an autoclave at 121°C for 15 minutes.

Principle and Interpretation:

Peptic digest of animal tissue provides nitrogen source and vitamin for microbial growth. Lactose is a fermentable sugar; Agar is the solidifying agent of the medium. Dipotassium hydrogen phosphate is buffering agent; Sodium sulphite anhydrous and fuchsin had weak inhibitory effects on gram-positive bacteria, and adding 20mL of absolute ethyl alcohol can improve the antibacterial activity of the medium. Sodium sulfite can reduce basic fuchsin coloration, E. coli can ferment lactose to produce acetaldehyde and acid, acetaldehyde combined with sodium sulfite and fuchsin compounds to form a pink to rose-red colony, fast fermenting lactose bacteria make fuchsin crystals precipitated and colonies produce green metallic sheen.

Appearance:

Dehydrated medium is a free-flowing rose-red powder. The prepared medium is a kind of orange-yellow transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Endo Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 3 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 24±2 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Escherichia coli</i>	ATCC 25922	10-100	Luxuriant	≥70%	Rose-red, green metallic sheen
<i>Enterococcus faecalis</i>	ATCC 43864	10-100	Luxuriant	≥70%	Pink to rose-red mucoid
<i>Escherichia coli</i>	ATCC 8739	10-100	Luxuriant	≥70%	Rose-red, green metallic sheen
<i>Salmonella typhimurium</i>	ATCC 14028	/	Luxuriant	/	Colorless to pale pink colonies
<i>Enterococcus faecalis</i>	ATCC 29212	/	Poor-inhibited	/	/

Reference:

1. Endo. 1904. Zentralbl. Bakteriol., Abt. 1, Orig. 35:109.
2. Levin and Schoenlein. 1930. A compilation of culture media for the cultivation of microorganisms. Williams & Wilkins, Baltimore, Md.