

Endo Agar

Catalog : HB0138-3

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 5 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	/	/

References:

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.