

ENDO Agar (i23264)

Endo Agar is a differential and slightly selective culture medium for the detection of *coliform* and other enteric microorganisms.

Industry: Clinical / Water / Dairy products / Food

Principles & Uses

Endo Agar is a differential and selective culture medium developed by Endo for the differentiation of gram-negative bacteria based on lactose fermentation while inhibiting gram-positive bacteria. This inhibition is achieved using sodium sulfite and basic fuchsin instead of traditional bile salts. The medium is important in the microbiological examination of water, wastewater, dairy products, and foods, recommended by organizations like APHA. It's used to confirm the presence and enumeration of *coliform* bacteria, including *Escherichia coli*, following a presumptive test in drinking water, milk, and food. Peptic digest of animal tissue provides essential nutrients for bacterial growth, while sodium sulfite and basic fuchsin make the medium selective by suppressing gram-positive organisms. *Coliforms* ferment lactose, resulting in pink colonies, while lactose non-fermenters produce colorless ones. *E. coli* colonies exhibit a greenish metallic luster due to fuchsin crystallization, known as the fuchsin sheen. To maintain its effectiveness, the medium should be protected from light to prevent photo-oxidation.

Composition (gr/L)

Peptic Digest of Animal Tissue 10, Lactose 10, Sodium Sulfite 2.5, Dipotassium Phosphate 3.5, Basic Fuchsin 0.5, Agar 15.

Final pH at 25°C 7.2 ± 0.2

Preparation from dehydrated Powder

Suspend 41.5 g of the powder in 1 Liter of purified water. Mix thoroughly. Autoclave at 121°C for 15 minutes. Cool to 45-50°C. Resuspend precipitate by gentle mixing before use. Endo Agar should be prepared as needed.

Quality Control

Dehydrated Appearance: Fine, homogeneous powder that may contain a large amount of minute to small dark particles.

Prepared Appearance: Light to medium, pink rose to tan rose trace orange, moderately hazy to hazy. May contain a moderate amount of small dark red particles and a large amount of minute dark red particles.

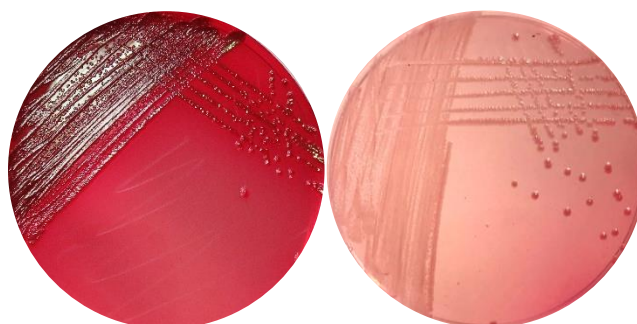
Reaction of 4.15% Solution at 25°C: pH 67.2 ± 0.

Cultural Response

Inoculate and incubate at 35 ± 2°C for 24-48 hours.

Organism (ATCC*)	Recovery	Colony color
<i>Escherichia coli</i> (25922)	Good	Rose-red, green metallic sheen
<i>Enterococcus faecalis</i> (29212)	Poor to fair	Pink to rose-red
<i>Klebsiella pneumonia</i> (33495)	Good	Pink to rose-red mucoid
<i>Salmonella Typhimurium</i> (14028)	Good	Colorless to pale pink

*ATCC is a registered trade mark of the American Type Culture Collection.



E. coli with a rose-red color and green metallic sheen (left).
S. typhimurium with colorless to pale pink colony color (right).

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.