ENDO AGAR

INTENDED USE
Remel Endo Agar is a solid medium recommended for use in qualitative procedures for the detection of coliforms and other enteric organisms.

SUMMARY AND EXPLANATION
In 1904, Endo developed a medium called Fuchsin Sulfite Infusion Agar for isolation of the typhoid bacillus.[1] The medium allowed for differentiation of coliforms (lactose fermenters) from nonlactose fermenters without the use of bile salts to inhibit gram-positive bacteria. The original formula has undergone many modifications with variations in peptones, sulfite, and fuchsin. Endo Agar is now made according to Harris' formulation and is useful for the bacteriological examination of water, wastewater, dairy products, and foods.[2,3]

PRINCIPLE
Meat peptone supplies essential amino acids, peptides, and nitrogenous compounds necessary for bacterial growth. Lactose is the fermentable carbon source. Dipotassium phosphate is a buffer. Sodium sulfite and basic fuchsin suppress gram-positive organisms. Coliforms ferment the lactose and produce pink to red colonies with a similar coloration of the medium. Lactose nonfermenters are colorless to faint pink against the pink background of the medium.

REAGENTS (CLASSICAL FORMULA)*

Lactose	10.0	g	Sodium Sulfite	2.5	g
Meat Peptone	10.0	g	Basic Fuchsin	0.4	g
Dipotassium Phosphate	3.5	g	Agar	15.0	g
			Demineralized Water	1000.0	ml

pH 7.5 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS
This product is for Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

Caution! Contains possible carcinogen based upon tests with laboratory animals. Refer to Material Safety Data Sheet for further information.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 41.5 g of medium in 1000 ml of demineralized water.
2. Heat to boiling with agitation to completely dissolve.
3. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
4. Dispense into appropriate containers. Protect prepared agar from light.

PROCEDURE
1. Consult appropriate references for the recommended procedure for sample preparation and inoculation.
2. Inoculate Endo Agar following established laboratory procedures and streak for isolation.
3. Incubate aerobically for 24-48 hours at 33-37°C.
4. Examine for typical colony morphology. Coliforms (lactose fermenters) produce pink to red colonies; nonlactose fermenters are colorless to faint pink in color. Additional testing is required for definitive identification of colonies.

QUALITY CONTROL
Each lot number of Endo Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures.

CONTROL	INCUBATION	RESULTS
Enterobacter aerogenes ATCC® 13048	Aerobic, 24-48 h @ 33-37°C	Growth w/ red colonies
Escherichia coli ATCC® 25922	Aerobic, 24-48 h @ 33-37°C	Growth w/ red colonies w/ green sheen
Salmonella enterica serovar Typhimurium ATCC® 14028	Aerobic, 24-48 h @ 33-37°C	Growth w/ colorless to pale pink colonies
Staphylococcus aureus ATCC® 25923	Aerobic, 24-48 h @ 33-37°C	Inhibition (complete)

BIBLIOGRAPHY

1. Endo, S. 1904. Zentralbl. Bakteriol. 35:109-110.
2. Harris, N. MacL. 1925. Military Surgeon. 57:280-285.
3. Genung, E.F. and L.E. Thompson. 1927. J. Bacteriol. 14:139-156.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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