m-ENTEROCOCCUS AGAR

INTENDED USE
Remel m-Enterococcus Agar is a solid medium recommended for selective isolation and enumeration of enterococci by direct plating or membrane filtration.

SUMMARY AND EXPLANATION
The *Enterococcus* count is used as an indicator of sanitary quality in water and dairy products.[1,2] In 1957, Slanetz and Bartley reported m-Enterococcus Agar was superior to other media tested for detection and enumeration of fecal streptococci by the membrane filtration technique.[3] Saraswat et al. used m-Enterococcus Agar to select for enterococci in dried foods, including nonfat dry milk.[4] This medium is recommended in *Standard Methods for the Examination of Water and Wastewater* and *Standard Methods for the Examination of Dairy Products*.

PRINCIPLE
Casein and soy peptones provide nitrogenous compounds, amino acids, and peptides necessary for bacterial growth. Yeast extract is a source of B-complex vitamins, essential for bacterial metabolism. Dextrose is a ready source of energy, and dipotassium phosphate is a buffer. Sodium azide is a selective agent, inhibitory to gram-negative organisms. Agar is a solidifying agent. Triphenyltetrazolium chloride (TTC) is a dye which serves as an indicator of bacterial growth. TTC is reduced to insoluble formazan inside the bacterial cell, resulting in the production of red colonies.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone	15.0	g	Dextrose	2.0	g
Soy Peptone	5.0	g	Sodium Azide	0.4	g
Yeast Extract	5.0	g	Triphenyltetrazolium Chloride (TTC)	0.1	g
Dipotassium Phosphate	4.0	g	Agar	10.0	g
			Demineralized Water	1000.0	ml

pH 7.2 ± 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.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 42 g of medium in 1000 ml of demineralized water.
2. Heat to boiling to dissolve completely.
3. Dispense into petri dishes and allow medium to solidify.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, and testing.[2,4]
2. Incubate aerobically for the proper time duration at the appropriate temperature following established laboratory procedures.
3. Observe for typical colony morphology. Enterococci form pink to red colonies, 0.5 to 3 mm in diameter.

QUALITY CONTROL
Each lot number of m-Enterococcus 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
Enterococcus faecalis ATCC® 29212	Aerobic, 24-48 h @ 33-37°C	Red colonies
Escherichia coli ATCC® 25922	Aerobic, 24-48 h @ 33-37°C	Inhibition (complete)

BIBLIOGRAPHY

1. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17th ed. APHA, Washington, D.C.
2. Eaton, A.D., L.S. Clesceri, E.W. Rice, and A.E. Greenberg. 2005. Standard Methods for the Examination of Water and Wastewater. 21st ed. APHA, Washington, D.C
3. Slanetz, L.W. and C.H. Bartley. 1957. J. Bacteriol. 74:591-595.
4. Saraswat, D.S., W.S. Clark, Jr., and G.W. Reinbold. 1963. J. Milk Food Technol. 26:114-118.

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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