TM 1286 - SALMONELLA DIFFERENTIAL AGAR (DOUBLE PACK)

INTENDED USE

For selective isolation and identification of Salmonellae from clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Salmonella Differential Agar is slight modification of original formulation of Rambach used for differentiation of *Salmonella* species from Proteus species and other enteric bacteria. Production of acid from propylene glycol is a novel characteristic of Salmonella species and is utilized in these media. Many of the media such as SS Agar, XLD Agar recommended for the identification and differentiation of *Salmonella* species are based on lactose fermentation and hydrogen sulphide production.

Other enteric gram-negative bacteria form colourless colonies. *Salmonella* Typhimurium and *Salmonella* Enteritidis produce pink to red colonies. Specimen should be enriched in an appropriate selective enrichment broth. This enriched culture is then inoculated on Salmonella Differential Agar and incubated at 35-37°C for 24-48 hours.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Peptone, special	8.000
Yeast extract	2.000
Sodium deoxycholate	1.000
B. C. Indicator	2.000
Agar	12.000
Part II	
Propylene glycol	10.000

PRINCIPLE

Peptone special and yeast extract provides carbonaceous, nitrogenous compounds, long chain amino acids, vitamins and other growth factors supports the luxuriant growth of bacteria Sodium deoxycholate inhibits gram-positive organisms rendering the` medium selective for enteric microorganisms. The BC indicator turns pink in presence of acid produced from propylene glycol. Lactose fermenting ability is determined by using an indicator, which can detect the presence of enzyme ß-galactosidase. Lactose fermenting (ß-galactosidase producing) bacteria yield blue violet coloured colony. Salmonellae produce acid from propylene glycol and on combining with the pH indicator gives typical pink red colonies.

INSTRUCTION FOR USE

- Dissolve 10 grams of fluid Part II in 1000 ml distilled water and add 25 grams of Part I.
- Mix well and heat to boiling to dissolve the medium completely, do not autoclave.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: Light yellow to light pink homogeneous free flowing powder.
Part II: Colourless viscous solution.

Appearance of prepared medium : Light orange coloured, clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
Proteus mirabilis	25933	50-100	Luxuriant	>=70%	Colourless	35-37°C	24-48 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	>=70%	Pink-red	35-37°C	24-48 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	>=70%	Pink-red	35-37°C	24-48 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Blue-green	35-37°C	24-48 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	>=70%	Blue-violet	35-37°C	24-48 Hours
Salmonella Typhi	6539	50-100	Luxuriant	>=70%	Colourless	35-37°C	24-48 Hours
Shigella flexneri	12022	50-100	Luxuriant	>=70%	Colourless	35-37°C	24-48 Hours
Staphylococcus aureus Subsp. aureus	25923	$>=10^4$	Inhibited	0%	-	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

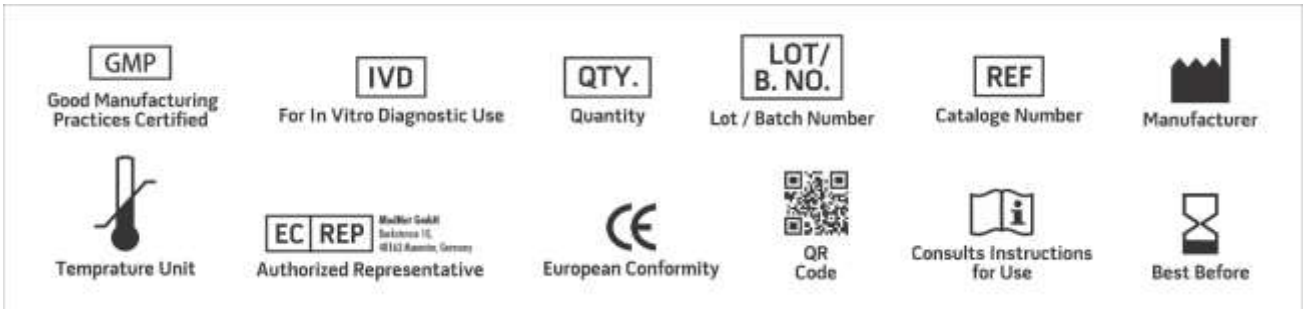
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Greenwald R., Henderson R.W. and Yappaw S., 1991, J. Clin. Microbiol. 29:2354.
3. Isenberg, H.D. Clinical MicrobiologyProcedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Rambach A., 1990, Appl Environ. Microbiol., 56:301.
6. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 08 Nov., 2019