

TM 1871 - HALOPHILIC AGAR

INTENDED USE

For isolation and cultivation of halophilic bacteria.

PRODUCT SUMMARY AND EXPLANATION

Halophilic media are formulated for isolation and cultivation of extreme halophilic species of *Halobacterium* and *Halococcus* from foods. For optimum growth they require high salt concentration of about 20-30%. In general, the requirement for salt by halophilic microorganisms is not an exclusive need for NaCl since many species require low levels of K⁺, Mg⁺⁺ and other cations anions in addition to NaCl. These bacteria can cause pink discoloration on the outer surface accompanied by putrefaction and decomposition of fish, bacon and hides preserved in sea salts.

COMPOSITION

Ingredients	Gms / Ltr
Casein acid hydrolysate	10.000
Yeast extract	10.000
Proteose peptone	5.000
Sodium citrate	3.000
Potassium chloride	2.000
Magnesium sulphate	25.000
Sodium chloride	250.000
Agar	20.000

PRINCIPLE

Halophilic Agar contains Casein acid hydrolysate, proteose peptone and yeast extract which provide all the necessary nutrients, mainly nitrogenous, carbonaceous compounds, long chain amino acids. and vitamins to the halophilic bacteria. Sodium citrate is added to avoid the losses. Magnesium sulphate, sodium chloride and potassium chloride are essential ions required for the growth of extreme halophiles.

INSTRUCTION FOR USE

- Dissolve 32.5 grams in 100 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Off-white to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Amber coloured, slightly opalescent gel w/ precipitate forms in Petri plates.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Halobacterium salinarium</i>	33171	50-100	Luxuriant	>=70%	35-37°C	12 days
<i>Halococcus morrhuae</i>	17082	50-100	Luxuriant	>=70%	35-37°C	12 days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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. Dundas I.E., 1977, Advances in Microbiology and Physiology, Rose H. and Tempest D.W. (Eds.), A.P. London.
2. Gibbons N.E., 1969, Methods in Microbiology, Vol. 3B, Norris J.R., and Ribbons D.W. (Eds.), A.P., New York, pp.169-183.
3. Isenberg, H.D. Clinical Microbiology Procedures 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. Kushner D. J., (Eds.), 1978, D. J. Kushner, pg 317, Academic Press, London, England.
6. MacLeod R. A., 1965, Bacteriol., Rev., 29:9

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**
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