

## TM 1348 - H BROTH

### INTENDED USE

For preparation of 'H' antigen, used in the identification and differentiation of *Salmonella* species.

### PRODUCT SUMMARY AND EXPLANATION

The genus *Salmonella* is a member of the family *Enterobacteriaceae*. *Salmonella* has three kinds of major antigen with diagnostic or identifying applications: Somatic (O) or Cell Wall Antigens, Surface (Envelope) Antigens and Flagellar (H) Antigens. Identification and differentiation of *Salmonella* based on H antigen were found to be less labor-intensive than the standard methods while requiring no more technical skill. H Broth, used for the preparation of H antigen in the identification and differentiation of *Salmonella*, was originally formulated by Hajna and Damon. The medium is also used for differentiating *Enterobacteriaceae*. The combination of Tryptone and Peptone makes the medium highly nutritive for the growth of gram-negative enteric bacteria.

### COMPOSITION

Ingredients	Gms / Ltr
Tryptone	5.000
Peptone	5.000
Beef extract	3.000
Dextrose (Glucose)	1.000
Dipotassium hydrogen phosphate	2.500
Sodium chloride	5.000

### PRINCIPLE

Tryptone, Peptone and Beef extract in the medium provide nitrogen, vitamins and minerals necessary to support bacterial growth. Dextrose is the carbon and energy source. Dipotassium phosphate provides buffering to the medium. Sodium chloride provides essential ions and maintains the osmotic equilibrium.

### INSTRUCTION FOR USE

- Dissolve 21.5 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in 4 ml amounts in 13 x 100 mm test tubes and sterilize by autoclaving at 10 psi pressure (115°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light amber coloured, clear solution without any precipitate.
pH (at 25°C)	: 7.2±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Salmonella</i> Typhi	6539	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Salmonella</i> Typhimurium	14028	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Salmonella</i> Enteritidis	13076	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Salmonella</i> Paratyphi A	9150	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Salmonella</i> Paratyphi B	8759	50-100	Luxuriant	35-37°C	18-24 Hours

**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. Gruenewald R., Dixon D. P., Brun M., Yappow S., Henderson R., Douglas J. E., and Backer M. H., Appl. Environ. Microbiol., 1990, 56 (1),2430
2. Hajna A. A. and Damon S. R., 1950, Pub. Health Rep., 65:116
3. Hajna A. A., 1951, Pub. Health Lab., 9:23
4. Hajna A. A., 1951, Personal communication.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.



<b>GMP</b> Good Manufacturing Practices Certified	<b>IVD</b> For In Vitro Diagnostic Use	<b>QTY.</b> Quantity	<b>LOT/B. NO.</b> Lot / Batch Number	<b>REF</b> Catalogue Number	 Manufacturer
 Temperature Unit	<b>EC REP</b> MedNet GmbH Buckstrasse 10, 49163 Muenster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
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