

**Product :**
GRAM NEGATIVE BROTH (GN BROTH)**Also known as**

Hajna Broth; GN Enrichment Broth

Specification

Liquid culture medium for enteric bacteria according to Hajna's formulation.

Formula * in g/L

Peptone.....	20.0
Dextrose.....	1.0
D-Mannitol.....	2.0
Sodium citrate.....	5.0
Sodium deoxycholate.....	0.5
Di-potassium phosphate.....	4.0
Monopotassium phosphate.....	1.5
Sodium chloride.....	5.0

Final pH 7,0 ±0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Dissolve 39 g of powder in 1 L of distilled water. Dispense in tubes or flasks and sterilize in the autoclave at 121°C for 15 minutes.

Description

GN Broth (Gram Negative Broth) is an enrichment and selective medium for enterobacteria, with a strong inhibitory action against Gram positive bacteria because of its high content of citrate and deoxycholate. Mannitol restrains the growth of *Proteus* and facilitates the proliferation of *Salmonella* and *Shigella*.

The medium is strongly recommended for primary enrichment, (14-16 hours), before proceeding to selective media such as EMB (Art. No. 01-068) or MacConkey (Art. No. 01-118). Its author, Hajna, declares an extraordinary selectivity of the medium, whatever the origin of the sample, if it is kept in a transport medium prior to inoculation.

Quality control**Incubation temperature:** 35°C ±2,0**Incubation time:** 14-16 h**Inoculum:** ≤100 CFU. min. 50 CFU (productivity)/ 10⁴ -10⁸ CFU (selectivity), according to ISO 11133:2014/Amd 1:2018.

Microorganism	Growth	Remarks
<i>Enterococcus faecalis</i> ATCC® 29212	Inhibited	-
<i>Staphylococcus aureus</i> ATCC® 6538	Inhibited	-
<i>Escherichia coli</i> ATCC® 25922	Good	Subculture on EMB Agar
<i>Escherichia coli</i> ATCC® 8739	Good	Subculture on EMB Agar
<i>Salmonella typhimurium</i> ATCC® 14028	Good	Subculture on EMB Agar
<i>Shigella flexneri</i> ATCC® 12022	Good	Subculture on EMB Agar
<i>Citrobacter freundii</i> ATCC® 43864	Good	Subculture on EMB Agar

References

- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media CRC Press. BocaRaton. Fla. USA.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA. Washington DC. USA.
- EDWARDS & EWING (1973) Identification of Enterobacteriaceae. Burgess Pub. Co. Minneapolis.
- HAJNA, A.A. (1955) A new enrichment medium for Gram negative organisms of the intestinal group. Pub. Hlth. Lab 13:83.
- ISENBERG, H.D. (1998) Essential Procedures for Clinical Microbiology. ASM Press. Washington. DC. USA.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- MacFADDIN, J.F. (1985) Media for Isolation-cultivation-identification- maintenance of Medical Bacteria. Vol. I. Williams & Wilkins. Baltimore. MD. USA.



Reference : 02-093

Scharlau Microbiology - Technical data sheet

Product :
GRAM NEGATIVE BROTH (GN BROTH)

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).
