



### Mueller Hinton Broth

LQ182V

#### Intended Use:

Sterile, ready prepared medium recommended to determine the susceptibility of bacteria to sulphonamides by the tube dilution method.

#### Composition\*\*

Ingredients	g / L
HM infusion B from #	300.000
Acicase™	17.500
Starch	1.500

\*\*Formula adjusted, standardized to suit performance parameters

# Equivalent to Beef, infusion from

\$ Equivalent to Casein acid hydrolysate

#### Directions

1. This product is available in pack sizes of 25 and 50 bottles containing 5 ml of sterile medium in each bottle.
2. The bottles when supplied are intact. Ensure that all bottles are in upright position and there is no leakage or any manufacturing defect or contamination.
3. User may remove the desired number of bottles from the box as per their requirement.
4. It should be handled by trained person wearing appropriate personal protective equipment (PPE) and sterile gloves.
5. Place the bottles on sterile surfaces such as laminar air flow or sterile working bench.
6. Label the ready to use LQ182V bottle.
7. Disinfect the outer surface of cap or closures or rubber stopper with suitable disinfectant example 70% IPA.
8. Inoculate the sample and Incubate at specified temperature and time.
9. Follow good lab practices for procedures and disposal

#### Principle And Interpretation

The Mueller Hinton formulation was originally developed as a simple, transparent agar medium for the cultivation of pathogenic *Neisseria* species (1). Other media were subsequently developed that replaced the use of Mueller Hinton Agar for the cultivation of pathogenic *Neisseria* species, but it became widely used in the determination of sulfonamide resistance of gonococci and other organisms. Mueller Hinton Broth is recommended for dilution antimicrobial susceptibility testing of all species of most commonly encountered aerobic and facultatively anaerobic bacteria (2,3). HM infusion B and Acicase™ provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a protective colloid against toxic substances present in the medium. Starch hydrolysis yields dextrose, which serves as a source of energy. These ingredients are selected for low thymine and thymidine content as determined by MIC values for *Enterococcus faecalis* with sulfamethoxazoletrimethoprim (SXT). Calcium and magnesium ion concentrations are adjusted to provide the amounts recommended by CLSI to give the correct MIC values with aminoglycosides and *Pseudomonas aeruginosa* (3).

#### Type of specimen

Clinical samples - Clinical isolates obtained from urine, csf, nasal swabs, faeces and other pathological materials

#### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).

After use, contaminated materials must be sterilized by autoclaving before discarding.

#### Warning and Precautions

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets. After use, contaminated materials must be sterilized by autoclaving before discarding.

## Limitations

1. Further biochemical tests must be carried out for complete identification

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Sterile clear Mueller Hinton Broth in glass bottle

### Colour

Light amber coloured clear solution in bottle

### Quantity of Medium

5 ml of medium in glass bottle

### pH

7.20-7.40

### Sterility Check

Passes release criteria

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	good-luxuriant
<i>Haemophilus influenzae</i> ATCC 49247	50-100	good-luxuriant (in Mueller Hinton Chocolate Broth)
<i>Neisseria gonorrhoeae</i> ATCC 49226	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	50-100	good-luxuriant
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	good-luxuriant
<i>Enterococcus faecalis</i> ATCC 19433 (00009*)	50-100	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6305	50-100	good-luxuriant (in Mueller Hinton Blood Broth)

Key : (\*) Corresponding WDCM numbers.

## Storage and Shelf Life

On receipt store between 15-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

## Reference

- Mueller J. H. and Hinton J., 1941, Proc. Soc. Exp. Biol. Med., 48:330.
- Murray P. R., Baron J. H., Pfaller M. A., Tenover J. C. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
- National Committee for Clinical Laboratory Standards, 2000, Approved Standard: M7-A5. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria that grow aerobically, 5th Ed., NCCLS, Wayne, Pa.

4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

5 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.

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## Packaging

LQ0182V-25X5ML - Mueller Hinton Broth

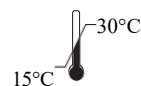
LQ0182V-50X5ML - Mueller Hinton Broth



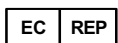
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biological  
material of animal  
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**Do not re-use**

### Disclaimer :

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