



## D.C.L.S. Agar

M160

### IntendeUse

Recommended a selective medium for the isolation of *Shigella* and *Salmonella* species. Also useful for isolation of *Vibrio cholerae*.

### Composition\*\*

Ingredients	g/ L
Proteose peptone	7.000
HM peptone B #	3.000
Lactose	5.000
Saccharose (Sucrose)	5.000
Sodium citrate	10.000
Sodium thiosulphate	5.000
Sodium deoxycholate	2.500
Neutral red	0.030
Agar	12.000
Final pH ( at 25°C)	7.2±0.2

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

# Equivalent to Meat extract B

### Directions

Suspend 49.53 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE**. Cool to 45 - 50°C and pour about 20 ml of medium into sterile Petri plates and allow to dry for about two hours with covers partially removed.

### Principle And Interpretation

*Salmonella* infection leads to salmonellosis, which ranges clinically from self-limited gastroenteritis (diarrhea, abdominal cramps and fever) to enteric fevers (including typhoid fever). *Shigella* species cause classical bacillary dysentery characterized by severe cramping abdominal pain and diarrhea with blood and mucus. D.C.L.S. Agar is a modification of Deoxycholate Citrate Agar of Leifson (1). It is a slightly selective and differential medium, which incorporates sucrose as an additional fermentable carbohydrate to differentiate lactose negative sucrose positive coliforms from *Salmonella* species. The addition of sucrose to this medium increases its usefulness because non-pathogenic sucrose fermenting organisms like *Proteus*, *Enterobacter*, *Klebsiella* form red colonies. D.C.L.S. Agar is a moderately selective culture medium which also supports the growth of *Vibrio* species.

### Type of specimen

Clinical samples - Stool samples

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3).

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.

### Limitations

1. Further biochemical and serological tests must be carried out for complete identification.
2. Some strains may show poor growth due to nutritional variations.

## 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

Light yellow to pink homogeneous free flowing powder

### Gelling

Firm, comparable with 1.2% Agar gel.

### Colour and Clarity of prepared medium

Reddish orange coloured, clear to slightly opalescent gel forms in Petri plates

### Reaction

Reaction of 4.95% w/v aqueous solution at 25°C. pH : 7.2±0.2

### pH

7.00-7.40

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	$\geq 10^4$	inhibited	0%	
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	none-poor	$\leq 10\%$	red
## <i>Proteus hauseri</i> ATCC 13315	50-100	luxuriant	$\geq 50\%$	red
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	50-100	luxuriant	$\geq 50\%$	colourless-slightly pink
<i>Shigella flexneri</i> ATCC 12022 (00126*)	50-100	fair-good	30-40%	colourless-slightly pink

Key : (\*) Corresponding WDCM numbers.      ## Formerly known as *Proteus vulgaris*

## Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. 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 (2,3).

## Reference

1. Leifson E., 1935, J. Pathol. Bacteriol., 40:581.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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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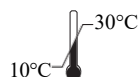
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**In vitro diagnostic  
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**Storage temperature**



**Do not use if  
package is damaged**

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