



Ready Prepared Media

## Technical Information

### D.C.L.S. Agar Plate

**Product Code: PM 1160**

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

### Composition\*\*

Ingredients	Gms / Litre
Proteose peptone	7.000
HM Peptone B#	3.000
Lactose	5.000
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 Beef extract

### Principle & 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 (3). 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 sample-faeces

### 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. 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.



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## Limitations

1. Further biochemical and serological tests must be carried out for complete identification.
2. Due to nutritional variations some organisms may show poor growth.

## 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 .

## Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

## Quality Control

### Appearance

Sterile D.C.L.S Agar in 90mm disposable plates with smooth surface & absence of black particles/cracks/bubbles.

### Colour

Reddish orange coloured medium

### Quantity of medium

25 ml of medium in 90 mm plate

### Reaction

7.00 - 7.40

### Sterility test

Passes release criteria

### Cultural Response

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

Oragnism	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	Non-Poor	$\leq 10\%$	Red
<i>Proteus vulgaris</i> ATCC 13315	50-100	luxuriant	$\geq 50\%$	Red
<i>Salmonella Typhimurium</i> 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.

## Storage and Shelf Life

On receipt store between 20-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.



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## 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 (1,2).

## Further Reading

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. 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.
3. Leifson E., 1935, J. Pathol. Bacteriol., 40:581.

## Disclaimer

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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