

## Product Data Sheet

### D.C.L.S. AGAR

**Product No.** GB-DCM-00119-1A

### INTENDED USE

For selective isolation and detection of Salmonella and Shigella species from faecal samples.

### PRODUCT SUMMARY

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 causes 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 Leif son. 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 nonpathogenic 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.

### Product Specifications

Ingredients	Gms / Ltr
Proteose peptone	7.000
Meat extract 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	15.000

## PRINCIPLE

The medium consists of Proteose peptone, Meat extract B which provide essential nutrients and minerals to the medium. Lactose helps in differentiating enteric bacilli, as lactose fermenters produce red colonies while lactose non-fermenters produce colourless colonies. Coliform bacteria, if present form pink colonies on this medium. The degradation of lactose causes acidification of the medium surrounding the relevant colonies and the pH indicator neutral red changes its colour to red.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Enterococcus faecalis	29212	50-100	Inhibited	0%	-	35-37°C	18-48 Hours
Escherichia coli	25922	50-100	Luxuriant	<=10%	Red	35-37°C	18-48 Hours
Proteus vulgaris	13315	50-100	Luxuriant	>=50%	Red	35-37°C	18-48 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	>=50%	Colourless slightly pink	35-37°C	18-48 Hours
Shigella flexneri	12022	50-100	Fair-good	30-40%	Colourless slightly pink	35-37°C	18-48 Hours

## INSTRUCTION FOR USE

- Dissolve 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.



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### **QUALITY CONTROL SPECIFICATIONS**

Appearance of Powder: Light yellow to pink homogeneous free flowing powder  
Appearance of prepared medium: Reddish orange coloured, clear to slightly opalescent gel forms in Petri plates.  
pH (at 25°C) : 7.2±0.2

### **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.

**This product is for research use only.**