

# Deoxycholate Lactose Agar

Selective agar for the enumeration and isolation of Coliform bacteria from milk, water, ice-cream and other materials.

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## Mode of Action

The concentrations of deoxycholate and citrate are so low that the coliform bacteria can grow normally whereas the accompanying Gram-positive bacteria are largely inhibited. Degradation of lactose to acid is detected by the pH indicator neutral red which changes its colour to red, and by a zone of precipitation caused by bile acid.

## Typical Composition (g/litre)

Peptones 10.0; lactose 10.0; sodium chloride 5.0; sodium citrate 2.0; sodium deoxycholate 0.5; neutral red 0.033; agar-agar 12.5.

## Preparation

Suspend 40 g/litre in demin. water and heat in a boiling water bath or a current of steam. Do not autoclave, pour plates.

pH: 7.1 ± 0.2 at 25 °C.

The plates are clear and red-brown.

- The culture medium should be prepared and used the same day.

## Quality control

| Test strains                      | Inoculum (cfu/ml) | Recovery rate (%) | Colony colour | Precipitate |
|-----------------------------------|-------------------|-------------------|---------------|-------------|
| Escherichia coli ATCC 25922       | $10^3$ - $10^5$   | ≥ 40              | red           | +           |
| Klebsiella pneumoniae ATCC 13883  | $10^3$ - $10^5$   | ≥ 40              | pink /red     | ±           |
| Enterobacter cloacae ATCC 13047   | $10^3$ - $10^5$   | ≥ 40              | pink / red    | ±           |
| Salmonella typhimurium ATCC 14028 | $10^3$ - $10^5$   | ≥ 40              | colourless    | -           |
| Salmonella enteritidis ATCC 13076 | $10^3$ - $10^5$   | ≥ 40              | colourless    |             |
| Shigella flexneri ATCC 12022      | $10^3$ - $10^5$   | ≥ 40              | colourless    |             |
| Proteus mirabilis ATCC 14273      | $10^3$ - $10^5$   | ≥ 40              | colourless    |             |
| Enterococcus faecalis ATCC 11700  | > $10^5$          | < 0.01            |               |             |
| Staphylococcus aureus ATCC 25923  | > $10^5$          | < 0.01            |               |             |



Salmonella enteritidis ATCC 13076



Enterobacter cloacae ATCC 13047