

## DESOXYCHOLATE CITRATE AGAR

Selective medium for pathogenic enterobacteria isolation from clinical specimens.

TYPICAL FORMULA	(g/l)
Pork, Infusion from	330.0
Proteose Peptone	10.0
Lactose	10.0
Sodium Desoxycholate	5.0
Ferric Ammonium Citrate	2.0
Sodium Citrate	20.0
Neutral Red	0.02
Agar	13.5

Final pH = 7.5 ± 0.2 at 25 °C.

### DIRECTIONS

Suspend 70.0 g of powder in 1 liter of distilled or deionized water. Heat to boiling with frequent and careful overturnings until complete dissolution. Avoid overheating and do not autoclave. Dispense in petri dishes.

### DESCRIPTION

DESOXYCHOLATE CITRATE AGAR is a selective medium suitable for the isolation of enteric pathogens of the intestinal tract, particularly *Salmonella spp* and *Shigella spp*, from clinical specimens.

### TECHNIQUE

Inoculate the medium with the specimen using a sterile loop and incubate at 36 ± 1 °C for 18-24 hours.  
Sodium desoxycholate and sodium citrate present in the medium inhibit the growth of the Gram-positive bacteria.  
Lactose fermenting bacteria cultivate with pink colonies surrounded by a zone of precipitated bile salts. Lactose non fermenting bacteria cultivate with colorless colonies, with or without a black centre caused by the production of hydrogen sulphide.

### QUALITY CONTROL

#### Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: pinkish beige.

#### Prepared medium

Appearance: opalescent.

Color: orange-red.

Incubation conditions: 36 ± 1 °C for 18-24 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Enterococcus faecalis</i>	29212	markedly to completely inhibited	
<i>Escherichia coli</i>	25922	partially inhibited	pink colonies with bile precipitate
<i>Salmonella typhimurium</i>	14028	fair to good	colorless colonies

### PERFORMANCE AND LIMITATIONS

Coliform strains may be encountered that grow on this medium, making difficult detecting pathogens. Heavy inocula should be distributed over the entire surface of the medium to prevent complete masking of pathogens by coliform organisms.

### STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.

Store prepared plates at 2-8 °C.

### REFERENCES

- Hynes M. (1942). J. Pathol. Bacteriol. **54**: 193-207.
- Farmer III, J.J., and M.T. Kelly. (1991). *Enterobacteriaceae* p 360-383 In Manual of clinical microbiology, 5<sup>th</sup> ed American Society for Microbiology, Washington, D.C.



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**PRESENTATION**

Product	REF	$\Sigma$
DESOXYCHOLATE CITRATE AGAR (7.1 l)	610015	500 g
DESOXYCHOLATE CITRATE AGAR (1.4 l)	620015	100 g

**TABLE OF SYMBOLS**

<b>LOT</b> Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	<b>IVD</b> <i>In Vitro</i> Diagnostic Medical Device
<b>REF</b> Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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