OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

DESOXYCHOLATE CITRATE AGAR CM0035

DESOXYCHOLATE CITRATE AGAR **CM0035**

Typical Formula*

	grams per litre
'Lab-Lemco' powder	5.0
Peptone	5.0
Lactose	10.0
Sodium citrate	5.0
Sodium thiosulphate	5.0
Ferric citrate	1.0
Sodium desoxycholate	2.5
Neutral red	0.025
Agar	15.0

* adjusted as required to meet performance standards

Directions

Suspend 48.5g in 1 litre of distilled water. With frequent agitation, bring to the boil to dissolve completely. Mix well and pour into sterile Petri dishes immediately. Dry the agar surface before use. This medium is heat sensitive. DO NOT AUTOCLAVE OR REMELT. DO NOT OVERHEAT.

Physical Characteristics

Straw/pink, free-flowing powder
Colour on reconstitution - pink
Moisture level - less than or equal to 7%
pH 7.0 ± 0.2 at 25°C
Clarity - opaque
Gel strength - firm, comparable to 15.0g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Tryptone Soya Agar

Reactions after incubation at 37°C for 24 hours

Inoculation with mixed cultures using diminishing sweep technique

Medium is challenged with 1E+03 to 1E+05 colony-forming units (cfu) of *Salmonella* and *Shigella* spp. and 1E+03 to 1E+05 cfu for *Escherichia coli* ATCC®8739

Salmonella abony	NCTC6017	1-2mm straw colonies
Salmonella enteritidis	ATCC®13076	1-2mm straw colonies

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Salmonella typhimurium	ATCC®14028	1-2mm straw colonies
Salmonella virchow	NCTC5742	1-2mm straw colonies
Salmonella poona	NCTC4840	1-2mm straw colonies
Shigella sonnei	ATCC®25931	1-3mm irregular, straw colonies
Shigella flexneri	ATCC®12022	1-3mm irregular, straw colonies

In mixed culture, using the diminishing sweep technique, a satisfactory result is represented by diagnostic reactions of Salmonellae and Shigellae strains and *Escherichia coli*. Clear differentiation must be seen and is based on the colour and morphology of the colonies.

Inoculation with pure cultures

Medium is challenged with 10-100 colony-forming units

Salmonella typhimurium	ATCC®14028	1-2mm straw colonies
Shigella sonnei	ATCC®25931	1-3mm irregular, straw colonies
Pseudomonas aeruginosa	ATCC®9027	0.5-2mm straw colonies
Escherichia coli	ATCC®11775	No growth or 0.25-2mm pink colonies and media
Proteus mirabilis	ATCC®12453	0.25-2mm straw colonies with or without black centres and no swarming

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

Medium is challenged with 1E+02 to 1E+03 colony-forming units

Escherichia coli	ATCC®25922	No growth or 0.25-2mm pink colonies and media
Proteus mirabilis	ATCC®29906	No growth or 0.25-2mm straw colonies with or without black centres and no swarming

Negative strains are inhibited or shall produce at least a 1 log(10) reduction when compared to the control medium.

Medium is challenged with greater than 1E+04 colony-forming units

Staphylococcus aureus	ATCC®6538	No growth
Enterococcus faecalis	ATCC®29212	No growth

Negative strains are inhibited.

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological Tests	Update the number of cfu that medium is challenged with for *E. coli* in mixed cultures.	Change control	MOC-2023-0676