D.C.A. Hynes

(Desoxycholate Citrate Agar – Hyne's modification)

BC2065

This formulation has increased levels of citrate and desoxycholate to make the medium more inhibitory to commensal flora than the original Leifson medium, but still allows for adequate growth of *Salmonella* spp and *Shigella* spp.

Formula grams per litre

Beef Extract	5.0
Balanced Peptone No. 1	5.0
Lactose	10.0
Sodium thiosulphate	5.4
Sodium citrate	8.5
Ferric citrate	1.0
Sodium desoxycholate	5.0
Neutral red	0.02
Bacteriological Agar	12.0

pH: 7.4 +/- 0.2

Appearance: Pink, clear, bile aggregates may appear on the surface on refrigeration.

Preparation

Suspend 52 grams of powder in 1 litre of deionised water . Bring to the boil over a gauze, swirling frequently to prevent burning. Simmer for 30 seconds to dissolve. Cool in a water bath to 47^{o}C before pouring plates. Dry the surface before inoculation. DO NOT REMELT OR AUTOCLAVE THIS MEDIUM.

Quality Control Organisms - Suggestions

Salmonella typhimurium	ATCC 13311	
E. coli	ATCC 11775	

Storage of Prepared Medium

Plates should be stored at 4-8^{o}C in the dark. Plates should be used within 1 week.

Directions for use

Inoculate surface, streaking for single colonies. Incubate at 37^{o}C aerobically for 24 hours.

Growth Characteristics

Organism	Colony Size (mm)	Shape & surface	Colour	Other
S. sonnei	1.0-2.0	CV.E.G.(D)	Colourless / pale pink	
S. flexneri	1.0-2.0	CV.E.G.	Colourless	
Salmonella sp.	1.0-4.0	CV.E.G.	Colourless	(black centre)
S.typhi	0.5-1.5	CV.E.G.	Colourless	(black/grey centre)
E. coli	P.P.-1.5	CV.CR.D.	Red	(no growth)
K. aerogenes	1.0-2.5	CV.E.G.	Pink	(mucoid)
Proteus spp	0.5-2.0	CV.E.G.	Colourless	(yellow)Fishy odour
P. aeruginosa	0.5-1.0	CV.CR.D.	Colourless	(green)

Abbreviation key for colonial descriptions:

CV = convex CR = crenated F = flat Rz = rhizoid E = entire G = glossy P.P. = pinpoint D = dull
() brackets are used to denote occasional variations

References

Hynes, M. 1942. The isolation of intestinal pathogens by selective media. J. Path. Bact, 54: 193-207.