B1094	L.D. ESCULIN AGAR

Formula

Ingredients :	gms/lit.
Tryptose	5.00
Yeast extract	5.00
Sodium chloride	2.50
L-Tryptophan	0.20
Vitamin K1	0.01
L-Cystine	0.40
Hemin	0.01
Esculin	1.00
Ferric citrate	0.50
Agar	20.00

Final pH (at 25°C) : 7.4 ± 0.2

Directions :

Suspend 34.62 gms.in 1000ml. distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle :

Tryptose and yeast extract provide the nitrogenous nutrients to the organisms. L-Tryptophan and L-Cystine serve as the amino acid source. Esculin is hydrolyzed by the organisms to form esculetin and dextrose. The esculetin reacts with the iron salt of ferric citrate to produce a dark brown to black complex. Also L-Cystine is the sulphur containing amino acid and hence H_2S production which in combination with ferric citrate gives black colouration to the colonies. Vitamin K1 and hemin are the additional growth factors. Black colour of H_2S positive colonies is rapidly lost after exposure to air, hence observe the plates in anaerobic glove box or immediately upon air exposure.

QC Tests – (I)Dehydrated Medium	
Colour :	Yellow
Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium	
pH (post autoclaving/heating) :	7.4 ± 0.2
Colour (post autoclaving/heating) :	Yellow
Clarity (post autoclaving/heating) :	Clear to slightly opalescent
(III)Q.C. Test Microbiological	

Cultural characteristics observed after 24 –48 hrs. at 35-37°C under anaerobic condition

MICROORGANISM (ATCC)	GROWTH	ESCULIN HYDROLYSIS	H_2S PRODUCTION	CATALASE
Bacteroidesfragilis (25285)	Luxuriant	+	-	+
Bacteroidesasaccharolyticus	Luxuriant	-	-	-
Fusobacteriummortiferum	Luxuriant	+	+	-

Precautions :	1. For Laboratory Use.
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
Use :	For identification of anaerobic bacteria particularly Bacteroides species on the basis of esculin hydrolysis.
Storage :	Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.
Packing :	500 gm bottle

Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1094	34.62g/l	14.44 lit	7.4 ± 0.2	Nil	121^0C/15min

Refer Disclaimer overleaf

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Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.
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