TECHNICAL SHEET

B1288	XLD AGAR MODIFIED

Formula

Ingredients :	gms/lit.
Yeast extract	3.00
L-Lysine hydrochloride	5.00
Lactose	7.50
Sucrose	7.50
Xylose	3.75
Sodium chloride	5.00
Sodium deoxycholate	1.00
Sodium thiosulphate	6.80
Ferric ammonium citrate	0.80
Phenol red	0.08
Agar	15.00

Final pH (at 25°C) : 7.4 ± 0.2

Directions :

Suspend 55.43 gms. in 1000 ml. distilled water. Heat with frequent agitation until the medium Boils. DO NOT AUTOCLAVE OR OVERHEAT. Transfer immediately to a water bath at 50°C. After Cooling, pour into sterile petri plates. It is advisable not to prepare large volumes which will require prolonged heating

Principle :

Yeast extract provides sources of nitrogen and carbon, as well as vitamins and cofactors required for growth. Xylose, lactose, and sucrose (Saccharose) provide of fermentable carbohydrate. Xylose is fermented by most enteric organisms except Shigella and Providencia. Lysine is added to differentiate Salmonella. As xylose is exhausted, Salmonella organismsdecarboxylate lysine causing reversion to alkaline conditions. Alkaline reversion by other lysine – positive organisms is prevented by excess acid production form fermentation of lactose and sucrose.
Sodium Thiosulfate and Ferric Ammonium citrate allow visualization of hydrogen sulfide production under alkaline conditions. Acidic conditions inhibit the reaction. Phenol red is an indicator. Sodium chloride maintains osmotic balance in the medium. Agar is a solidifying agent.
Sodium Desoxycholate in XLD agar inhibits growth of gram – positive organisms.

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

Cultural characteristics observed after 18 - 24 hrs. at 5 - 37°C.

MICROORGANISM (ATCC)	GROWTH	COLOUR OF COLONY
Proteus vulgaris (13315)	Good –luxuriant	Grey with black centres
Proteus mirabilis (25933)	Good –luxuriant	Grey with black centres
Salmonella enteritidis (13076)	Good –luxuriant	Red with black centers
Salmonella paratyphi A	Good –luxuriant	Red
Salmonella paratyphi B	Good –luxuriant	Red with black centers
Salmonella typhi (6539)	Good –luxuriant	Red with black centers
Salmonella typhimurium (14028)	Good –luxuriant	Red with black centers
Shigellasonnei (25931)	Good –luxuriant	Red
Shigelladysenteriae (13313)	Good –luxuriant	Red
Enterobacteraerogenes (13048)	Fair	Yellow
Escherichia coli (25922)	Fair	Yellow
Staphylococcus aureus (25923)	Partially inhibited	-

Refer Disclaimer overleaf

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.				
	2. Red. false – positive colonies may occur with some Proteus and Pseudomonas species.				
	3. Incubation in excess of 48 hours may lead to false – positive results.				
	4. S. paratyphi A, S. choleraesuis, S. pullorum and S. gallinarum may form red colonies without black centers, thus resembling Shigella species.				
	5. Some Proteus strains will give black – centered colonies on XLD Agar.				
Use :	For selective isolation and enumeration of Salmonella typhi and other Salmonella species.				
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
B1288	55.43 g/l	9.02L	7.4 $\pm$ 0.2	Nil	Donot autoclave/overheat.Boil medium to dissolve w/frequent agitation