

B819	XLD AGAR AS PER B.P.		
Formula			
Ingredients :	gms/lit.		
Yeast extract	3.00		
L-Lysine	5.00		
Lactose	7.50		
Sucrose	7.50		
Xylose	3.50		
Sodium chloride	5.00		
Sodium deoxycholate	2.50		
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 56.68 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 organisms decarboxylate 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 35 - 37°C.			
MICROORGANISM (ATCC)	GROWTH	COLOUR OF COLONY	
Proteus vulgaris (13315)	Good -luxuriant	Yellow	
Proteus mirabilis (25933)	Good -luxuriant	Yellow	
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	
Shigella sonnei (25931)	Good -luxuriant	Red	
Shigella dysenteriae (13313)	Good -luxuriant	Red	
Enterobacter aerogenes (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 othr 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
B819	56.68 g/l	8.82 L	7.4 ± 0.2	Nil	Donot autoclave/overheat. Boil medium to dissolve w/frequent agitation

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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