

**TECHNICAL SHEET**

<b>AS004</b>	<b>Kligler Iron Agar Slant</b>						
<b>Formula</b>							
<b>Ingredients:</b>		<b>gms/lit.</b>					
Peptone		15.00					
Meat Extract B#		3.00					
Yeast extract		3.00					
Proteose peptone		5.00					
Lactose		10.00					
Dextrose		1.00					
Ferrous sulphate		0.20					
Sodium chloride		5.00					
Sodium thiosulphate		0.30					
Phenol red		0.024					
Agar		15.00					
#- Equivalent to Beef extract							
Final pH (at 25°C): 7.4 ± 0.2							
<b>Directions:</b>							
Streak the test inoculum aseptically into the slant and incubate at appropriate conditions.							
<b>Principle:</b>							
Kligler Iron Agar is a combination of the lead acetate medium described by Kligler and Russel's Double Sugar Agar and is used as a differentiation medium for typhoid, dysentery and allied bacilli. This combination permits the differentiation of the gram-negative bacilli both by their ability to ferment dextrose or lactose and to produce hydrogen sulfide. Meat Extract B, Yeast Extract, Peptone, and Proteose Peptone provide nitrogen, vitamins and minerals. Ferrous sulfate and sodium thiosulfate are the indicators of hydrogen sulfide production. Phenol red is the pH indicator. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent.							
<b>(I) QC Tests</b>							
pH:		7.4 ± 0.2					
Color:		Red coloured slants.					
Appearance:		Sterile Kligler Iron Agar in disposable slants.					
<b>(II) Sterility test</b>							
Passes release criteria							
<b>(III) Q.C. Test Microbiological</b>							
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.							
	MICROORGANISM (ATCC)	INOCULUM (CFU)	GROWTH	Gas	H <sub>2</sub> S	SLANT	Butt
	Escherichia coli 25922 (00013*)	50-100	luxuriant	Positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium
	#Klebsiella aerogenes 13048 (00175*)	50-100	luxuriant	Positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium
	Citrobacter freundii 8090	50-100	luxuriant	Positive reaction	blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium
	Proteus vulgaris 6380	50-100	luxuriant	negative reaction	blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium

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Klebsiella pneumoniae 13883 (00087*)	50-100	luxuriant	positive reaction	No blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Salmonella Paratyphi A 9150	50-100	luxuriant	positive reaction	No blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Salmonella Schottmuelleri 10719	50-100	luxuriant	positive reaction	blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Salmonella Typhi 6539	50-100	luxuriant	negative reaction	blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Salmonella Enteritidis 13076 (00030*)	50-100	luxuriant	positive reaction	blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Shigella flexneri 12022 (00126*)	50-100	luxuriant	negative reaction	-ve reaction, no blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Pseudomonas aeruginosa 27853 (00025*)	50-100	luxuriant	negative reaction	-ve reaction, no blackening of medium	alkaline reaction, red color of the medium	alkaline reaction, red color of the medium
Yersinia enterocolitica 27729	50-100	luxuriant	variable reaction	-ve reaction, no blackening of medium	alkaline reaction, red color of the medium	acidic reaction, yellowing of the medium
Enterobacter cloacae 13047 (00083*)	50-100	luxuriant	positive reaction	-ve reaction, no blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium

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<b>Precautions :</b>	1. In Vitro diagnostic use only. 2. Read the label before opening the container
<b>Limitations :</b>	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium. 2. Results should be noted after 18-24 hours. Else it might result in erroneous results. 3. Straight wire loop should be used for inoculation. 4. Pure isolates should be used to avoid erroneous results.
<b>Use:</b>	Recommended for the differential identification of gram-negative enteric bacilli on the basis of the fermentation of dextrose, lactose and H <sub>2</sub> S production.
<b>Storage:</b>	Store between 2-8°C. Use before expiry date on the label.
<b>Packing:</b>	10/25 disposable slants.

**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 BIOMARK LABORATORIES publications.

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