

**TECHNICAL SHEET**

<b>AS012</b>	<b>Triple Sugar Iron Agar Slant</b>					
<b>Formula</b>						
<b>Ingredients:</b>						
	<b>gms/lit.</b>					
Peptic digest of animal tissue	10.00					
Casein enzymic hydrolysate	10.00					
Yeast extract	3.00					
Meat Extract B#	3.00					
Lactose	10.00					
Sucrose	10.00					
Dextrose	1.00					
Sodium chloride	5.00					
Ferrous sulphate	0.20					
Sodium thiosulphate	0.30					
Phenol red	0.024					
Agar	12.00					
#- 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>						
Beef extract, Yeast extract, Peptic digest of animal tissue and Casein enzyme hydrolysate provide nitrogen, vitamins, and minerals. Triple sugar iron agar contains three carbohydrates (dextrose, lactose and sucrose). When these carbohydrates are fermented, the resulting production of acid is detected by the phenol red indicator. The color changes that result are yellow for acid production and red for alkalization. Sodium thiosulfate is reduced to hydrogen sulfide. Hydrogen sulfide then reacts with an iron salt yielding the typical black iron sulfide. Sodium chloride maintains the osmotic balance of the medium. Agar is a solidifying agent. Some members of the Enterobacteriaceae and H <sub>2</sub> S producing Salmonella may not be H <sub>2</sub> S positive on TSI Agar. Some bacteria may show H <sub>2</sub> S production on Kligler Iron Agar but not on TSI Agar. This can happen because utilization of sucrose in TSI Agar suppresses the enzymic pathway that result in H <sub>2</sub> S production.						
<b>(I) QC Tests</b>						
pH:	7.4 ± 0.2					
Color:	Red coloured slants.					
Appearance:	Sterile Triple Sugar Iron Agar in disposable slants.					
<b>(II) Sterility test</b>						
Passes release criteria						
<b>(III) Q.C. Test Microbiological</b>						
Cultural characteristics observed after incubation at 35-37°C for 18-24 hours.						
MICROORGANISM (ATCC)	GROWTH	Gas	H <sub>2</sub> S	Butt	SLANT	
Enterobacter aerogenes 13048	luxuriant	Positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium	
Escherichia coli 25922 (00013*)	luxuriant	Positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium	
Klebsiella pneumoniae 13883	luxuriant	Positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium	

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Proteus vulgaris 13315	luxuriant	negative reaction	blackening of medium	acidic reaction, yellowing of the medium	alkaline reaction, red color of the medium
S. serotype paratyphi A 9150	luxuriant	positive reaction	No blackening of medium	acidic reaction, yellowing of the medium	alkaline reaction, red color of the medium
S. serotype typhi 6539	luxuriant	negative reaction	blackening of medium	acidic reaction, yellowing of the medium	alkaline reaction, red color of the medium
S. serotype typhimurium 14028	luxuriant	positive reaction	blackening of medium	reaction, yellowing of the medium	alkaline reaction, red color of the medium
Shigella flexneri 12022	luxuriant	negative reaction	No blackening of medium	acidic reaction, yellowing of the medium	alkaline reaction, red color of the medium
Citrobacter freundii 8090	luxuriant	positive reaction	blackening of medium	acidic reaction, yellowing of the medium	acidic reaction, yellowing of the medium

Refer disclaimer Overleaf

	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.
<b>Use:</b>	For identification of gram-negative enteric bacilli on the basis of dextrose, lactose and sucrose fermentation and hydrogen sulphide production.
<b>Storage:</b>	Store between 2-8°C. Use before expiry date on the label.
<b>Packing:</b>	10/25 disposable slants.

**Disclaimer:**

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