T.S.I. AGAR

Differential medium for the identification of Enterobacteriaceae.

TYPICAL FORMULA	(g/l)
Peptospecial	20.0
Lactose	10.0
Saccharose	10.0
Sodium Chloride	5.0
Meat Extract	3.0
Yeast Extract	3.0
Dextrose	1.0
Ferric Sulphate	0.2
Sodium Thiosulphate	0.3
Phenol Red	0.025
Agar	12.0
Final pH 7.3 ± 0.2	

DESCRIPTION

T.S.I. AGAR is a differential medium for the identification of Enterobacteriaceae.

PRINCIPLE

Peptospecial and meat extract are sources of nitrogen, carbon, sulphur and other nutrient factors. Lactose, saccharose and dextrose are substrates for fermentation. Sodium chloride maintains the osmotic balance of the medium. Yeast extract is a source of amino acids and vitamins of group B. Ferric sulphate and sodium thiosulphate are substrates for hydrogen sulphide and carbon dioxide production. Phenol red is the pH indicator. Agar is the solidifying agent.

PREPARATION

Melt the content of the bottle in a boiling water-bath (loosing the caps partially unscrewed) until completely dissolved. Cool to 45-50°C, mix well avoiding the formation of bubbles and aseptically distribute into final tubes. Allow the medium to solidify in a slant position.

TECHNIQUE

Inoculate the tubes by stabbing the butt and streaking the slant, using a sterile loop. Incubate at 36+/-1°C for 24 hours, loosing the caps partially unscrewed.

INTERPRETATION OF RESULTS

If the medium in the butt of the tube becomes yellow (acid), but the medium in the slant becomes red (alkaline), the organism tested only ferments glucose. A yellow (acid) color in the slant and butt indicates the organism ferments glucose, lactose and/or saccharose. A red (alkaline) color in the slant and butt indicates the organism is a non-fermenter.
Hydrogen sulfide production results in a black precipitate on the butt of the tube.
Gas production is indicated by splitting and cracking of the medium.

STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. Russell, F.F. (1911). J. Med. Res. 25: 217.
2. Association of Official Analytical Chemists. (1995). Official methods of analysis of AOAC International, 16th ed.
3. US Pharmacopoeia 24, NF 19 (2000).

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CE IVD

PRODUCT SPECIFICATIONS

NAME
T.S.I. AGAR

PRESENTATION
Glass tubes containing 200 ml of medium

STORAGE
10-25°C

PACKAGING

Ref.	Content	Packaging
413020	6 bottles x 200 ml	6 bottles in cardboard box

pH OF THE MEDIUM
7.3 ± 0.2

USE
AGAR is a differential medium for the identification of Enterobacteriaceae

TECHNIQUE
Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM
Red medium, slightly opalescent, may have precipitates

SHELFLIFE
2 years

QUALITY CONTROL
1. Control of general characteristics, label and print
2. Sterility control
   7 days at 22 ± 1°C, in aerobiosis
   7 days at 36 ± 1°C, in aerobiosis
3. Microbiological control
   Inoculum for productivity: 10-100 UFC/ml
   Inoculum for selectivity: 10^4-10^5 UFC/ml
   Inoculum for specificity: ≤10^4 UFC/ml
   Incubation Conditions: 18-24 h at 36 ± 1°C

Microorganism		Growth	Slant	Butt	Gas	H_2S
Proteus mirabilis	ATCC® 25933	Good	Red	Yellow	-	+
Salmonella typhimurium	ATCC® 14028	Good	Red	Yellow	+/-	+
Escherichia coli	ATCC® 25922	Good	Yellow	Yellow	+	-
Shigella flexneri	ATCC® 12022	Good	Red	Yellow	-	-
Pseudomonas aeruginosa	ATCC® 27853	Good	Red	Red	-	-

TABLE OF SYMBOLS

LOT Batch code	IVD *In vitro* Diagnostic Medical Device	Manufacturer	Use by	Fragile, handle with care
REF Catalogue number	Temperature limitation	Contains sufficient for <n> tests	Caution, consult instructions for use	Do not reuse

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