

TECHNICAL DATA SHEET

Iron Sulphite Agar

Principle

Iron sulphite agar is composed of tryptone, sodium sulphite, Ferric citrate and agar. Tryptone provides nitrogen and other trace nutrients for the growth of bacteria. Sodium sulphite is selective agent and sulphite source. Ferric citrate is sulphite reduction indicator. The sulphite reducing bacteria reduce sulphite to sulphide, which react with iron salt and forms black color complex. Since the sulphite reducing bacteria forms black color colonies. Agar is solidifying agent.

Use: For detection of thermophillic anaerobic organisms causing sulphide spoilage in foods.

Contents*

Ingredients	Gram/Litre
Tryptone	10.000
Sodium Sulphite	0.500
Ferric citrate	0.500
Agar	15.000
pH at 25°C	7.1 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 26.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 50-52 °C and distribute aseptically in test tubes (10 ml). Inoculate 1ml of test sample in molten state mix well. Allow to set the medium in up write position and incubate at desired temperature.

Specimens' types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

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Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored free flowing, homogeneous powder
Reaction of 2.6% solution	7.1 $\pm$ 0.2 at 25 °C
pH	6.90- 7.30
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at $\leq$ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at $\leq$ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Cultural characteristics observed under anaerobic conditions, after an incubation at 35 $\pm$ 2°C for 24-48 hours.

Organism	ATCC	Inoculum (CFU)	Growth	Colony color
<i>Clostridium sporogenes</i>	11437	50-100	Luxuriant	Black
<i>Clostridium perfringens</i>	3624	50-100	Luxuriant	Black
<i>Escherichia coli</i>	8739	50-100	Luxuriant	No Blackening

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.

Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

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Reference

1. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) *Manual of Clinical Microbiology*, 11th Edition. Vol. 1.
2. Salfinger Y., and Tortorello M.L., (2015), *Compendium of Methods for the Microbiological Examination of Foods*, 5th Ed., American Public Health Association, Washington, D.C

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