



## Product Information

### SS AGAR (SALMONELLA SHIGELLA AGAR)

Product Number S3431

#### Product Description

SS Agar (Salmonella Shigella Agar) is a differential selective media used for the isolation of *Salmonella* and some *Shigella* species from pathological specimens, and suspected foods. The peptic digest of animal tissue and beef extract provide essential growth nutrients. Lactose is the fermentable carbohydrate. Brilliant green, bile salts and thiosulphate selectively inhibit gram positive and coliform microorganisms. Sodium thiosulphate is reduced by certain species of enteric organisms to sulphite and H<sub>2</sub>S gas. The production of H<sub>2</sub>S gas is detected as an insoluble black precipitate of ferrous sulphide, formed upon reaction of H<sub>2</sub>S with ferric ions or ferric citrate. The fermentation of lactose results in the production of acid which is indicated by a change of color from yellow to red by the pH indicator, neutral red. Therefore, lactose fermenting organisms grow as red pigmented colonies. Lactose non-fermenting colonies grow as colorless colonies. Growth of the *Salmonella* species is uninhibited and appears as a colorless colony with a black center. *Shigella* grows as a colorless colony.

#### Components

Item	g/L
Peptic Digest of Animal Tissue	5.00
Beef Extract	5.00
Lactose	10.00
Bile Salts Mixture	8.50
Sodium Citrate	10.00
Sodium Thiosulphate	8.50
Ferric Citrate	1.00
Brilliant Green	0.00033
Neutral Red	0.025
Agar	15.00

Final pH (at 25°C) 7.0 ± 0.2

#### Precautions and Disclaimer

For laboratory use only. Not for drug, household or other uses.

#### Preparation Instructions

Suspend 63 grams of SS Agar in 1000 mls of distilled water. Boil with frequent agitation to dissolve the medium completely. Do not autoclave or overheat.

Overheating may destroy the selectivity of the medium. Cool to 50°C. Mix and pour into sterile petri plates.

#### Storage

Store the dehydrated medium at 24°C and the prepared medium at 2-8° C.

#### Product Profile

Appearance	Pinkish yellow colored, homogeneous, free flowing powder.
Gelling	Firm.
Color and Clarity	Reddish orange colored, clear to slightly opalescent gel forms in petri plates.
Cultural Response	Cultural characteristics observed after 18-24 hours at 35-37°C.

#### Organisms

Organisms	Growth
<i>Salmonella typhimurium</i>	good
<i>Salmonella typhi</i>	good
<i>Salmonella enteritidis</i>	good
<i>Shigella flexneri</i>	good

#### Organisms

Organisms	Color
<i>Salmonella typhimurium</i>	colorless, black center
<i>Salmonella typhi</i>	colorless, black center
<i>Salmonella enteritidis</i>	colorless, black center
<i>Shigella flexneri</i>	colorless

#### References

1. Compendium of Methods for Microbiological Examination of Food, (1992). Vanderzant, C., et al., eds. 3<sup>rd</sup> Edition. APHA.. Washington, D.C.
2. Standard Methods for the Examination of Dairy Products, (1992). Marshall, R., ed. 16<sup>th</sup> Edition. APHA. Washington, D.C.

3. Standard Methods for the Examination of Water and Wastewater, (1992). Greenberg, A.E., et al.,

eds. 18<sup>th</sup> Edition. APHA. Washington, D.C.

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