

PRODUCT INFORMATION

SIM Medium

Cat. No. S19-110



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DESCRIPTION

SIM Medium is a semisolid medium used for the determination of indole formation, sulfide production and motility of the Enterobacteriaceae, especially *Salmonella* and *Shigella*. The SIM Medium is formulated to detect sulfide production, indole formation and production. Ferrous ammonium citrate and sodium thiosulfate are used to detect hydrogen sulfide production. H₂S gas reacts with ferrous ammonium citrate to produce ferrous sulfide, a black precipitate. Casein peptone contains tryptophan, which is converted to indole. Indole is detected after incubation by the addition of Kovac's reagent which reacts with indole to product a red color. The medium is semi-solid due to a low concentration of agar and motility is easily seen by growth a radiating from original stab.

Formula* per Liter:

Enzymatic Digest of Casein	20.g
Peptic Digest of Animal Tissue	6.1g
Ferric Ammonium Citrate	0.2g
Sodium Thiosulfate	0.2g
Agar.....	3.5g

Final pH: 7.3 ± 0.2 at 25°C

* Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 30 grams of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring to dissolve completely. Autoclave at 121°C for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogeneous, free flowing and light beige to beige.
2. Visually the prepared medium is clear to trace hazy and light amber.
3. Expected cultural response after 18-24 hours at 35°C.

Organism	Result	Indole	Motility	H ₂ S
<i>Escherichia coli</i> ATCC® 25922	Growth	+	+	-
<i>Salmonella typhimurium</i> ATCC® 14028	Growth	-	+	+
<i>Shigella flexneria</i> ATCC® 12022	Growth	-	-	-

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.