

PRODUCT CODE: 414125

SPS Agar (Selective Agar according to Angelotti)(Dehydrated Culture Media) for microbiology

Preparation

Suspend 39,7 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 118 °C for 15 minutes.

Uses

SPS Agar (Sulphite Polymyxin Sulfadiazine) is a moderately selective medium to recover *Clostridium perfringens* from fresh or preserved foods and food ingredients.

The medium was modified by Angelotti, incorporating sulfadiazine and polymyxin B sulphate to the more recent Mossel formula for the recovery of *Clostridium perfringens*.

Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Ferric citrate and sodium sulphite are H₂S indicators.

C. perfringens reduces the sulphite to sulphide which in turn reacts with the iron and forms a black iron sulphide precipitate, seen as black colonies. Polymyxin B sulfate and sulfadiazine are inhibitors to organisms other than *Clostridium spp.*

Bacteriological agar is the solidifying agent. A few microorganisms other than *C. perfringens* also grow on SPS Agar so it is best to perform a Gram stain and look for spores. Many common microorganisms are totally or partially inhibited, but if they develop, they generally do not form black colonies nor spores, nor do they reduce nitrate and are non-motile Gram-positive vegetative bacilli.

Composition

See in Data Sheet (TDS).

Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 24-48 hours.

Microorganism	Growth	Colony Colour
<i>Clostridium perfringens</i> ATCC 13124	Good	Black colony
<i>Clostridium sporogenes</i> ATCC 11437	Moderate	Black colony
<i>Escherichia coli</i> ATCC 25922	Inhibited	-
<i>Staphylococcus aureus</i> ATCC 6538	Moderate inhibited	White colony

Storage

Temp. Min.:2 °C; Temp. Max.:25 °C

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