

S.S. AGAR (MODIFIED)

Selective medium for the isolation of *Salmonella* spp. and *Shigella* spp.

TYPICAL FORMULA	(g/l)
Peptone	5.5
Meat Extract	5.0
Lactose	10.0
Sodium Tiosulfate	8.5
Yeast Extract	5.0
Sodium Citrate	1.0
Bile Salts N.3	1.5
Ferric Ammonium Citrate	1.5
Brilliant Green	0.33 mg
Neutral Red	0.025
Agar	14.0
Final pH 7.0 ± 0.2	

DESCRIPTION

S.S. AGAR (MODIFIED) is a highly selective medium for the isolation of *Salmonella* spp. and some species of *Shigella* from clinical specimens and food.

PRINCIPLE

Gram-positive microorganisms and coliforms are inhibited by selective components: brilliant green, bile salts n.3, sodium tiosulfate and citrate. The differentiations of microorganisms is obtained through the introduction of lactose in the medium. Lactose fermented bacteria cause acidification, thus formation of red colonies for the presence of neutral red. Not-fermented microorganisms form instead colourless colonies. Sodium tiosulfate in combination with iron acts as indicator for sulphur production causing the blackening of the colony center.

PREPARATION

Suspend 52.0 g of the powder in 1 litre of distilled or deionized water. Mix well. Heat to boil shaking frequently until dissolved completely. DO NOT AUTOCLAVE. Cool to 45-50°C. In aseptic conditions dispense in Petri dishes and let solidify the medium with the lids of the plates partially removed.

TECHNIQUE

Inoculate the plate streaking the sample onto the agar surface to isolate pure colonies from samples containing a mixed flora. Incubate at 36±1°C for 18-24 hours.

INTERPRETATION OF RESULTS

Salmonella spp. and other lactose not-fermented microorganisms can produce opaque, translucent or transparent colonies, with or without black center. *Shigella* colonies are colourless. The few lactose fermented microorganisms, that are able to growth on the medium, show reddish mucoid colonies.

STORAGE

10-30°C away from light, until the expiry date on the label. Eliminate if 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 only and must be used 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. Gray L.D. (1995). *Escherichia*, *Salmonella*, *Shigella* and *Yersinia*, p. 450-456. In *Manual of clinical microbiology*, 6th ed. American society of microbiology.
2. Leifson E. (1935). *J. Pathol. Bacteriol.* 40: 581.
3. Rose, H.M., and M.H. Kolodny (1942). *J. Lab. Clin. Med.* 27: 1081-1083.



LIOFILCHEM® S.r.l.

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**PRODUCT SPECIFICATIONS****NAME**

S.S. AGAR (MODIFIED)

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610042	500 g	500 g of powder in plastic bottle
620042	100 g	100 g of powder in plastic bottle
6100425	5 kg	5 kg of powder in plastic container

pH OF THE MEDIUM

7.0 ± 0.2

USE

S.S. AGAR (MODIFIED) is a highly selective medium for the isolation of *Salmonella* spp. and some species of *Shigella* from clinical specimens and foods

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUMDehydrated medium

Appearance: free-flowing, homogeneous

Colour: light-pink

Prepared medium

Appearance: opalescent

Colour: purple

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 10-100 UFC/ml
Inoculum for selectivity: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤10⁴ UFC/ml
Incubation Conditions: 18-24 h at 35 ± 2°C, in aerobiosis

Microorganism**Growth****Features**

<i>Shigella flexneri</i>	ATCC® 12022	Good	Colourless colonies
<i>Salmonella typhimurium</i>	ATCC® 14028	Good	Colourless colonies with or without black center
<i>Enterococcus faecalis</i>	ATCC® 29212	Inhibited	---
<i>Staphylococcus aureus</i>	ATCC® 25923	Inhibited	---
<i>Escherichia coli</i>	ATCC® 25922	Partially Inhibited	Pink or red colonies

TABLE OF SYMBOLS

LOT	Batch code	IVD	In vitro Diagnostic Medical Device		Manufacturer		Use by
REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use

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S.S. AGAR (MODIFIED)– S.S. AGARAS (MODIFIKUOTAS)

PARUOŠIMAS

52 g terpės suspenduojama viename litre distiliuoto vandens. Maišant pašildyti iki virimo, kol visiškai ištirpsta. Ataušinta iki 45-50° C terpė išpilstoma į sterilias Petri lėkštes. NEAUTOKLAVUOJAMA.

PANAUDOJIMAS

SS AGARAS yra selektyvi terpė skirta salmonelių ir kai kurių rūšių šigelių išskyrimui iš pataloginės medžiagos, maisto ir kitų bandinių. Natrio citratas, tulžies druskos ir brilliantinė žoluma slopina gramteigiamų bakterijų ir kai kurių nepatogeninių enterobakterijų augimą. Salmonelių kolonijos yra didesnės ir juodais centrais. Laktozės nefermentuojantys mikroorganizmai auga bespalvėmis kolonijomis. Kiti laktozės fermentuotojai auga raudonomis ar violetinėmis kolonijomis.

KULTŪRŲ CHARAKTERISTIKOS PO 18 - 24 VALANDŲ INKUBAVIMO 36+/-° C TEMPERATŪROJE

Mikroorganizmai	Augimas	Kolonijų spalva
<i>Salmonella typhimurium</i> ATCC 14028	Geras	Bespaltvė su juodu centru
<i>Shigella flexneri</i> ATCC 12022	Geras	Bespaltvė
<i>Escherichia coli</i> ATCC 25922	Dalinai inhibuojamas	Rausvai raudona
<i>Staphylococcus aureus</i> ATCC 25923	Inhibuojamas	
<i>Enterococcus faecalis</i> ATCC 29212	Inhibuojamas	

FORMULĖ (g/litre)

Jautienos ekstraktas	5
Mielų ekstraktas	5
Peptonas	5,5
Laktozė	10
Tulžies druska N.3	1,5
Natrio tiosulfatas	8,5
Geležies amonio citratas	1,5
Natrio citratas	1
Neutralus raudonis	0,025
Brilliantinė žoluma	0,00033
Agaras	14

pH = 7,0+/- 0,2

PRODUKTAS	KODAS	ĮPAKAVIMAS
SS AGAR	610042	500 g
	620042	100 g