

Mitis Salivarius Agar

Selective medium for the isolation of streptococci and enterococci from clinical specimens.

TYPICAL FORMULA	(g/l)
Enzymatic Digest of Casein	15.0
Enzymatic Digest of Animal Tissue	5.0
Sucrose	50.0
Dextrose	1.0
Dipotassium Phosphate	4.0
Trypan Blue	0.075
Crystal Violet	0.0008
Agar	15.0
Final pH 7.0 ± 0.2 at 25°C	

DESCRIPTION

Mitis Salivarius Agar is a medium used with supplements for the selective isolation of viridans streptococci, such as *Streptococcus mitis* and *Streptococcus salivarius*, and enterococci, from specimens containing mixed microbial flora.

PRINCIPLE

Enzymatic digest of casein and enzymatic digest of animal tissue provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients for organisms growth. Sucrose and dextrose are the fermentable carbohydrates. Dipotassium phosphate is the buffering agent. Trypan blue is absorbed by the colonies, producing a blue colour. Crystal violet inhibits most Gram-negative bacilli and Gram-positive bacteria except streptococci. Agar is the solidifying agent.

Potassium Tellurite 1% Supplement (ref. 80022) is added to the medium to aid in suppressing the contaminant bacterial flora.

PREPARATION

Suspend 90.0 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Aseptically, add 1 ml of Potassium Tellurite 1% Supplement. Pour in Petri dishes.

TECHNIQUE

Inoculate and streak the specimen as soon as possible after it is received in the laboratory. Incubate the plates at 35 ± 2°C for 24-48 hours in atmosphere enriched with 5% carbon dioxide. Include a nonselective agar plate (e.g., blood agar) to increase the chance of recovering organisms present in low numbers and to provide an indication of other organisms present in the specimen.

INTERPRETATION OF RESULTS

S. mitis cultivates with small blue colonies. These colonies may become easier to distinguish with longer incubation. *S. salivarius* produces blue, smooth or rough "gum drop" colonies, 1-5 mm in diameter depending on the number of colonies on the plate. *Enterococcus* spp. form dark blue or black, shiny, slightly raised, 1-2 mm colonies.

STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

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

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- J.F. MacFaddin (1985) Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 522-526. Williams & Wilkins, Baltimore, MD.
- R.R. Facklam, J.A. Washington II. (1991) Streptococcus and related catalase-negative gram-positive cocci. p. 238-257. In A. Balows, W.J. Hausler, Jr., K.L. Herrmann, H.D. Isenberg, H.J. Shadomy (ed.), Manual of clinical microbiology, 5th ed. American Society for Microbiology, Washington, D.C.
- R.R. Facklam, D.F. Sahm, Enterococcus, p. 308-314. In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, R.H. Tenover (ed.) (1995) Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.



PRODUCT SPECIFICATIONS

NAME

Mitis Salivarius Agar

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
611020	500 g	500 g of powder in plastic bottle
621020	100 g	100 g of powder in plastic bottle
6110205	5 kg	5 kg of powder in plastic bottle

pH OF THE MEDIUM

7.0 ± 0.2

USE

Mitis Salivarius Agar is a medium used with supplements for the selective isolation of viridans streptococci and enterococci from specimens containing mixed microbial flora

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: light blue-beige

Ready-to-use medium

Appearance: clear to very slightly opalescent

Colour: deep blue

SHELFLIFE











4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10⁴-10⁶ CFU
Incubation Conditions: 18-48 h at 35 ± 2°C, in atmosphere with 5% CO₂

Microorganism		Growth	Colony Colour
<i>Streptococcus mitis</i>	ATCC® 19615	Good	Blue
<i>Streptococcus salivarius</i>	ATCC® 13419	Good	Blue
<i>Streptococcus pyogenes</i>	ATCC® 19615	Good	Blue
<i>Enterococcus faecalis</i>	ATCC® 29212	Good	Blue-black
<i>Escherichia coli</i>	ATCC® 25922	Inhibited	---
<i>Staphylococcus aureus</i>	ATCC® 25923	Inhibited	---

TABLE OF SYMBOLS

 LOT	Batch code	 IVD	<i>In vitro</i> Diagnostic Medical Device		Manufacturer		Use by		Fragile, handle with care
 REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use		Do not reuse



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