

Meat Liver Agar

For the cultivation of anaerobic microorganisms.

Mode of Action

The nutrient basis of meat and liver tissue maintains an adequate degree of anaerobiosis in the culture medium and also provides a rich supply of nutrients. It thus ensures that even strict and fastidious anaerobes grow well. The sulfite present in the culture medium, is reduced to H₂S by some anaerobes (e.g. many Clostridium species); this is indicated by blackening due to the presence of iron salt.

Typical Composition (g/litre)

Meat-liver base 20.0; D(+)-glucose 0.75; starch 0.75; sodium sulfite 1.2; ammonium iron(III) citrate 0.5; agar-agar 11.0.

Preparation

Suspend 34 g in 1 litre of demin. water and autoclave (15 min at 121 °C).

pH: 7.6 ± 0.2 at 25 °C.

The plates are clear and yellowish-brown.

Experimental Procedure and Evaluation

The culture medium can be dispensed into tubes or poured into plates. Inoculation can be performed by the pour plate method or by surface spreading. Inoculated plates must be incubated in an anaerobic environment established by e.g. Anaerocult® A, Anaerocult® A mini or Anaerocult® P.

Incubation temperature and period: as optimal as possible (up to 48 hours at 35 °C aerobically). H₂S-positive anaerobes grow as black colonies.

Ordering Information

Product	Merck Cat. No.	Pack size
Meat Liver Agar	1.15045.0500	500 g
Anaerobic jar	1.16387.0001	1 ea
Anaeroclip®	1.14226.0001	1 x 25
Anaerocult® A	1.13829.0001	1 x 10
Anaerocult® A mini	1.01611.0001	1 x 25
Anaerocult® P	1.13807.0001	1 x 25
Anaerotest®	1.15112.0001	1 x 50
Plate basket	1.07040.0001	1 ea

Quality control

Test strains	Growth	Black colonies
Clostridium perfringens ATCC 10543	good / very good	+
Clostridium sporogenes ATCC 11437	good / very good	+
Clostridium tetani ATCC 19406	good / very good	+ / -
Escherichia coli ATCC 25922	good / very good	-
Proteus mirabilis ATCC 14153	good / very good	- / poor
Bacteroides vulgatus ATCC 8482	medium / very good	+ / -