

MAC CONKEY MUG AGAR

Selective medium for *Escherichia coli* isolation from lactose non-fermenting bacteria.

TYPICAL FORMULA	(g/l)
Peptone	20.0
Lactose	10.0
Bile Salts n°3	1.5
Sodium Chloride	5.0
Neutral Red	0.03
Crystal Violet	0.001
MUG	0.1
Agar	15.0

Final pH = 7.1 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 51.6 g of powder in 1 liter of distilled or deionized water. Heat until completely dissolved. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C. Dispense in petri dishes.

DESCRIPTION

MAC CONKEY MUG AGAR is a selective medium recommended for the isolation of enterobacteria, for the differentiation of coliforms from lactose non fermenting pathogenic enterobacteria and for the rapid identification of *Escherichia coli*. The colorless MUG (4-methylumbelliferil- β -Dglucuronide) is hydrolyzed by the enzyme β -glucuronidase owned by *E. coli* with releasing in the medium of the compound 4-methylumbelliferone, highly fluorescent when the growths are observed under a UV lamp with light emission at 366 nm. Fermentation of the lactose causes an acidification of the medium and consequent precipitation of the biliary salts and absorption of the neutral red. The coliforms cultivate with pink-red colonies surrounded by a zone of precipitation while the organisms lactose non fermenting cultivate with colorless colonies. The biliary salts and the crystal violet inhibit the growth of the Grampositive bacteria.

TECHNIQUE

Inoculate the specimen streaking onto the surface of the medium using a sterile loop. Incubate at 36 ± 1 °C for 18-24 hours.

QUALITY CONTROL

Dehydrated medium

Appearance: free flowing, homogeneous.

Color: pink, pinkish beige.

Prepared medium

Appearance: slightly opalescent.

Color: pinkish red.

Incubation conditions: 36 ± 1 °C for 18-24 hours.

Microorganism	ATCC Growth	Characteristics
<i>Klebsiella pneumoniae</i>	13883 good	pink
<i>Escherichia coli</i>	25922 good	red
<i>Proteus mirabilis</i>	12453 good	colorless

STORAGE

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.

REFERENCES

1. Trepeta, A., and S.C. Edberg. (1984). J. Clin. Microbiol. **19**: 172-174.



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PRESENTATION









Product	REF	
MAC CONKEY MUG AGAR (9.6 l)	610170	500 g
MAC CONKEY MUG AGAR (1.9 l)	620170	100 g
MAC CONKEY MUG AGAR (96.8 l)	6101705	5 Kg

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	IVD <i>In Vitro</i> Diagnostic Medical Device
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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