

AZIDE MALTOSE AGAR KF

Selective medium for fecal streptococci detection and enumeration in waters and foodstuffs.

TYPICAL FORMULA	(g/l)
Peptospecial	10.0
Yeast Extract	10.0
Sodium Chloride	5.0
Sodium Glycerophosphate	10.0
Maltose	20.0
Lactose	1.0
Sodium Azide	0.4
Brom Cresol Purple	0.015
Agar	20.0

Final pH = 7.2 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 76.4 g of powder in 990 ml of distilled or deionized water. Heat to boiling for approximately 5 minutes and gently agitate until completely dissolved. DO NOT STERILIZE. Cool to 45-50 °C and aseptically add 10 ml of T.T.C. 1% supplement (code 80300). Mix well. Dispense in petri dishes.

DESCRIPTION

AZIDE MALTOSE AGAR KF is a selective medium utilized for isolating and enumerating the fecal streptococci in waters and foods. APHA, FDA, ICMSF recommend the medium for the primary isolation of fecal streptococci in waters and foodstuffs, by the technique of membrane filtration or by poured plate method. Sodium azide inhibits growth of Gram-negative bacteria, of streptococci not belonging to group D and of lactic bacteria (*Leuconostoc mesenteroides*, *Lactobacillus lactis*, *Lactobacillus acidophilus*). Fecal streptococci reduce T.T.C. and appear with pink-red colonies.

TECHNIQUE

Pour Plate Technique

1. Prepare appropriate dilutions of test material.
2. Place the selected volume of sample in a Petri dish.
3. Pour 15 ml of the prepared medium at 45-50 °C into each plate.
4. Thoroughly mix the medium and sample to uniformly disperse the organisms.
5. Allow the agar to solidify.
6. Incubate plates in the inverted position at 36 ± 1 °C for 48 hours.

Membrane Filtration Method

1. Distribute 4-5 ml of medium into 55 mm dishes.
2. Filter samples through a sterile membrane to give 20-200 colonies on the membrane surface.
3. Transfer the membrane to the agar, invert the plates and incubate at 36 ± 1 °C for 48 hours.
4. Count all red or pink colonies, if the case with the aid of a low power (10 to 15 magnifications) binocular wide field dissecting microscope.
5. Calculate the number of fecal streptococci and report as fecal streptococci per 100 ml.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light-greenish beige.

Prepared medium

Appearance: very slightly to slightly opalescent.

Color: light purple.

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

Microorganism	ATCC	Growth	Characteristics
<i>Escherichia coli</i>	25922	none to poor	
<i>Streptococcus faecalis</i>	19433	good	red centers
<i>Streptococcus faecalis</i>	29212	good	red centers
<i>Enterobacter aerogenes</i>	13048	none to poor	

PERFORMANCE AND LIMITATIONS

Many strains of *S. bovis* and *S. equinus* are inhibited by azide. Overheating may lower pH, causing the decrease of productivity by medium.

PRECAUTIONS

Azide Maltose Agar KF contains sodium azide. This substance is harmful by inhalation and if swallowed, irritating to eyes, respiratory system and skin. Consult safety data sheet for further details. Sodium azide reacts with many metals, especially copper, to produce explosive metal azides.

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 media at 2-8 °C.








REFERENCES

1. APHA (1985). Compendium of Method for the Microbiological Examination of Foods.
2. Donnelly, C.W., R.E. Bracket. 1992. Compendium of methods for the microbiological examination of foods, 3rd ed. American Public Health Association.

PRESENTATION

Product	REF	Σ
AZIDE MALTOSE AGAR KF (6.5 l)	610154	500 g
AZIDE MALTOSE AGAR KF (1.3 l)	620154	100 g
TTC 1 % <i>supplement</i>	80300	10 PV

TABLE OF SYMBOLS

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

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