

Product Data Sheet

M-FC AGAR BASE MODIFIED

Product No. GB-DCM-00358-1A

INTENDED USE

For detection & enumeration of Klebsiella in water by membrane filter technique.

PRODUCT SUMMARY

M-FC Agar Base, modified is used for the enumeration of Klebsiella using membrane filter technique. Klebsiella are widely distributed in nature, occurring in soil, water, grains, vegetation etc. Wood pulp, paper mills, textile finishing plants and sugarcane processing operations contain large numbers of Klebsiella in their effluents and are often in the predominant coliform in such effluents. M-FC Agar, modified is formulated as per APHA for enumeration of Klebsiella. M-FC Agar is modified by replacing lactose by inositol and adding Carbenicillin.

Product Specifications

Ingredients	Gms / Ltr
Tryptose	10.000
Proteose peptone	5.000
Yeast extract	3.000
Sodium chloride	5.000
Inositol	10.000
Bile salts mixture	1.500
Aniline blue	0.100
Agar	15.000

PRINCIPLE

Proteose peptone, tryptose and yeast extract in the medium provide necessary nutrients for the growth of faecal coliforms. Inositol is the fermentable carbohydrate and the carbon source in the medium. Bile salts mixture inhibits the growth of contaminating gram-positive microorganisms. Aniline blue is a triphenyl methane dye, which suppresses the growth of many gram-positive microorganisms. Also, along with rosolic acid it forms the indicator system in the medium. Carbenicillin inhibits accompanying coliforms and other bacteria and helps in selective isolation of Klebsiella species. Sample volume is selected to yield 20 to 60 Klebsiella colonies per membrane. This membrane filter is aseptically placed on agar surface. Occasional false positive results may be occurred due to Enterobacter species. Klebsiella colonies appear deep blue to blue grey due to aniline blue present in the medium. Klebsiella colonies will form blue or bluish gray coloured. Presumptive colonies should be further confirmed by performing the biochemical tests.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony (on membrane filter)	Incubation Temperature	Incubation Period
Enterobacter aerogenes	13048	50-100	Good-luxuriant	>=50%	pink or occasionally pale yellow	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good-luxuriant	>=50%	deep blue to blue grey	35-37°C	18-24 Hours

INSTRUCTION FOR USE

Dissolve 49.6 grams in 1000 ml distilled water.

- Heat to boiling to dissolve the medium completely. Do not autoclave.
- Add 10 ml of 1% Rosolic Acid.
- Cool below 45°C and add 50 mg Carbenicillin.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to greyish yellow homogeneous free flowing powder.

Appearance of prepared medium: After Addition of 1% Rosolic Acid: Red coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.4 ± 0.2

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

This product is for research use only.