

CM 21450 – PROSKAUER BECK MEDIUM

INTENDED USE

For the cultivation and maintenance of *M. tuberculosis*.

PRODUCT SUMMARY AND EXPLANATION

Proskauer and Beck medium is an inorganic chemically defined medium which supports growth of *M. tuberculosis*. It was reported that chemically modified defined growth medium like Proskauer and Beck medium provides more consistent cellular fatty acid profiles than lipid rich L. J. medium. With added ferrous chloride (0.0046 g /ltr) and ZnSO₄ .7H₂O (0.001 g/ltr) (referred as Modified Proskauer and Beck medium) this medium is recommended by AOAC for testing Tuberculo-cidal activity of disinfectants.

COMPOSITION

Ingredients	Gms / Ltr
Asparagine	5.000
Potassium dihydrogen phosphate	5.000
Magnesium citrate	2.500
Magnesium sulphate, heptahydrate	0.600

PRINCIPLE

The medium consists of Casein enzymic hydrolysate, tryptose and yeast extract which provide nitrogenous nutrients, carbon, sulphur, vitamin B complex, trace elements for the growth of haemolytic streptococci. Dextrose acts as the energy source. Crystal violet inhibits gram-positive bacteria and sodium azide inhibits gram-negative rods and non-haemolytic streptococci.

INSTRUCTION FOR USE

Dissolve 12.79 grams in 1000 ml distilled water containing 20 ml glycerol.

Distribute in tubes or flasks. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : White to cream homogeneous free flowing powder.

Appearance of prepared medium : Colourless to pale yellow coloured, clear solution, without any precipitate in tubes.

pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with 5-10% CO₂.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
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Mycobacterium tuberculosis H37RV	25618	50-100	Good-luxuriant	35-37°C	2-4 Weeks
Mycobacterium kansasii	12478	50-100	Good-luxuriant	35-37°C	2-4 Weeks
Mycobacterium gordonae	14470	50-100	Good-luxuriant	35-37°C	2-4 Weeks
Mycobacterium avium	25291	50-100	Good-luxuriant	35-37°C	2-4 Weeks
Mycobacterium smegmatis	14468	50-100	Good-luxuriant	35-37°C	2-4 Weeks

PACKAGING:

Inpacksize of 100 gm and 500 gm bottles.

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.

REFERENCES

1. Proskauer, B. and Beck, M. 1898, Z. Hyg. Infektionskrankh., Vol. 18, p128.
2. L. Larsson, E. Jantzen and J. Johnsson, Oct. 1985. European Journal of Clinical Microbiology & Infectious Diseases, Vol. 4, No.5, p. 483.
3. Official Methods of Analysis of AOAC International 2000, 17th edition. Vol. I Chapter 6., Disinfectants, Editor. Emma Singleton. Subchapter 3: Other Tests 6.3.06 AOAC Official method 965.12 Tuberculoid Activity of disinfectants. Official Method p.14.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Buckstrasse 10, 49163 Muenster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

