

Product Data Sheet

DUBOS OLEIC BROTH BASE
Product No. GB-DCM-00188-1A

INTENDED USE

For cultivation of Mycobacterium tuberculosis.

PRODUCT SUMMARY

Tuberculosis remains a major global public health problem worldwide. Mycobacterium tuberculosis, the causative agent of tuberculosis in man, is carried in airborne particles known as droplet nuclei that are generated when patients with pulmonary tuberculosis cough. Infections occur when a susceptible person inhales the droplet nuclei containing the bacterium. Dubos Oleic Broth Base is recommended by Dubos and Middlebrook for the primary isolation and subsequent cultivation of the tubercle bacilli. On comparative studies of various media, Dubos Oleic Agar Base was found to be superior to other media for the primary isolation of Mycobacteria. Mycobacteria grow very rapidly when inoculated in a broth media and therefore preliminary culture of all the test samples in a broth media is recommended.

Product Specifications

Ingredients	Gms / Ltr		
Tryptone	0.500		
L-Asparagine	1.000		
Monopotassium phosphate	1.000		
Disodium phosphate	2.500		
Ferric ammonium citrate	0.050		
Magnesium sulphate	0.010		
Calcium chloride	0.0005		
Zinc sulphate	0.0001		
Copper sulphate	0.0001		

PRINCIPLE

The medium consists of tryptone and L-aspargine as sources of nitrogen. The phosphates (together with calcium chloride) buffer the media as well as serve as sources of phosphates. Magnesium sulphate, zinc sulphate, copper sulphate and ferric ammonium citrate provide trace metals and sulphates.



INSTRUCTION FOR USE

- Dissolve 1 grams in 180 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 20ml of sterile Oleic Albumin Supplement and 5000 to 10000 units of Penicillin.
- Mix well and dispense in sterile tubes.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Incubation Temperature	Incubation Period
Mycobacterium avium	25291	50-100	Luxuriant	Pink with bile precipitate	35-37°C	2-6 Weeks
Mycobacterium gordonae	14470	50-100	Luxuriant	Colourless	35-37°C	2-6 Weeks
Mycobacterium kansasii	12478	50-100	Luxuriant	Colourless	35-37°C	2-6 Weeks
Mycobacterium smegmatis	14468	50-100	Luxuriant	Colourless	35-37°C	2-6 Weeks

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Off-white to beige homogeneous free flowing powder. Appearance of prepared medium: Light amber coloured, clear to slightly opalescent solution with a fine precipitate

pH (at 25°C): 6.6±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.