McFarland Standard set **R092**

McFarland standards are used to perform spectrophotometric comparisions of bacterial densities in water, saline or liquid growth medium. It provides laboratory guidance for the standardization of numbers of bacteria for susceptibility testing or other procedure requiring a standardization of the inoculum like growth promotion test (GPT).

Set Contains:

R092A (Standard 0.5)- 1 tube

R092B (Standard 1)-1 tube

R092C (Standard 2)- 1 tube

R092D (Standard 3)- 1 tube

R092E (Standard 4)- 1 tube

Directions

Prepare the inoculum of culture required for testing by using sterile saline. Match the density of the resultant suspension with the density of the desired standard. The standards must be thoroughly mixed on a vortex mixture at the time of use to obtain a uniform suspension. Adjust the density of cell suspension by adding saline if it is more turbid as compared to the desired standard or by adding culture if it is dilute. Check the density of the turbidity by determining the absorbance of 0.5 McFarland standard using a spectrophotometer with a 1 cm light path. The absorbance at 625 nm should be 0.08 to 0.10. The standards should be checked regularly to ensure the density accuracy.

Interpretation

McFarland standards are a set of tubes with increasing concentration of Barium Sulphate suspension. The turbidity of Barium Sulphate's white precipitation is used as a point of comparision of bacterial suspensions to known bacterial turbidity.

McFarland Standard	0.5	1	2	3	4
Approximate Corresponding suspension x 10^8 CFU/ml	1.5	3	6	9	12

Limitation of procedure

1. Coloured media may interfere with result interpretation and give incorrect results.

2. Bacterial suspensions of older cultures may not be comparable with expected bacterial counts.

Storage

Store the standards at 2-8°C, away from light after each use.

Reference

1. McFarland, J.1907. Nephelometer: JAMA 14:1176-1178

2. Murry,PR; Baron,EJ; Jorgensen,JH;Landry,ML;Pfaller,MA; Manual of Clinical Microbiology 9th edition ASM press, Washington DC.

Penta Mix

FD260

An antibiotic mixture recommended to add in media to reduce contamination of other organisms from suspected tuberculosis positive clinical samples prior to inoculation. If desired can be added to Middlebrook 7H9 Broth Base (M198).

Composition

Per vial sufficient for medium

*Ingredients	Concentration
Polymyxin B	6000Units
Amphotericin B	600µg
Nalidixic acid	2400µg
Trimethoprim	600µg
Azlocillin	600µg

Directions:

Rehydrate the contents of vial with 3 ml distilled water. Aseptically add 0.1 ml in 4 ml of sterile Middlebrook 7H9 Broth Base M198 alongwith 0.5 ml Middlebrook OADC growth supplement FD018 or add 3 ml in 120 ml of sterile Middlebrook 7H9 Broth Base M198 alongwith 15 ml Middlebrook OADC growth supplement FD018 .

Note:

On reconstitution it has to be used within 72 hours provided it is stored at proper refrigeration conditions 2-8ºC or upto 6 months if stored at -20ºC. Once thawed the Penta mix should be immediately used.

Storage and Shelf Life

Store at 2-8°C. Use before the expiry date on the label.

Revision : 1 / 2012

*** Not For Medicinal Use**

Technical Data

Middlebrook OADC Growth Supplement

FD018

An enrichment supplement recommended for isolation and cultivation of Mycobacteria.

Composition

Per vial sufficient for 450 ml medium

Ingredients	Concentration
Bovine albumin fraction V	2.500g
Dextrose	1g
Catalase	0.002g
Oleic acid	0.025g
Sodium chloride	0.425g
Distilled water	50ml

Directions:

Warm up the refrigerated supplement to room temperature. Shake well to form uniform suspension. Aseptically add 1 vial to 450 ml of sterile, molten, cooled (45-50ºC) Middlebrook 7H9 Agar Base M197/Middlebrook 7H10 Agar Base M199/ Middlebrook 7H10 Agar Base, Special M196/Middlebrook 7H11 Agar BaseM511/Middlebrook 7H11 HiVeg™ Agar Base MV511/Middlebrook 7H11 Agar Base w/o Malachite green M511A. Mix well and pour into sterile screw capped tubes or containers.

Note : Shake well before use. “Presence of Bovine albumin Fraction V, in the supplement may give it an opaque and sometimes cloudy appearance. It does not interfere with the biological efficacy of the product”.

Storage and Shelf Life

Store at 2-8°C. Use before expiry date on the label.

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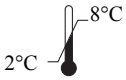
IVD — In vitro diagnostic medical device

CE Marking



Storage temperature

Do not use if package is damaged

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