

TECHNICAL SHEET

BA132 McFarland Standard set

Formula

Reagents:

Sulphuric acid, 1%(v/v)	Sulphuric acid	1.00 ml
	Deionized water	100.00 ml

Barium chloride, 1.175% (W/V)	Barium chloride	1.175 g
	Deionized water	100.00 ml

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.

Quality Control:

Appearance: Colorless, clear liquid.

McFarland Standard No.	0.5	1	2	3	4
1.0% Barium chloride (ml)	0.5	0.1	0.2	0.3	0.4
1.0% Sulfuric acid (ml)	9.95	9.9	9.8	9.7	9.6
Approx. cell density (1X10 ⁸ CFU/mL)	1.5	3.0	6.0	9.0	12.0
%Transmittance*	74.3	55.6	35.6	26.4	21.5
Absorbance*	0.08-0.1	0.257	0.451	0.582	0.669

*At wavelength of 625 nm.

Storage: Between 2-8°C

Packing: 100/500 ml bottle

Warning & Precautions :

In Vitro diagnostic Use only. For professional use only. For Laboratory Use. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

Use: McFarland standards are used to perform spectrophotometric comparisons 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).

Disposal:

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques.

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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