



Product Specification

cdhfinechemical.com

FUCHSIN BASIC 0.1% AQUEOUS SOLUTION

PRODUCT CODE 835600

Intended Use

Basic Fuchsin 0.1% w/v is used as counter stain in Gram staining procedure.

Principle And Interpretation

Different mechanisms have been proposed to explain the gram reaction. There are many physiological differences between gram-positive and gram-negative cell walls. Ever since Christian Gram has discovered Gram staining, this process has been extensively investigated and redefined. In practice, a thin smear of bacterial cells is stained with crystal violet, then treated with an iodine containing mordant to increase the binding of primary stain. A decolorizing solution of alcohol or acetone is used to remove the crystal violet from cells which bind it weakly and then the counterstain (like Basic fuchsin) is used to provide a colour contrast in those cells that are decolorized. The gram-positive organisms or cells have more mucopeptide in their cell walls as compared to gram-negative ones. Gram-negative bacteria have more content of lipo-proteins in their cell walls. The polymers of glycerol or ribitol phosphate called as teichoic acids are also found in the cell walls of gram-positive organisms but are very less or almost not present in gram-negative organisms. In a properly stained smear by gram staining procedure, the gram-positive bacteria appear blue to purple and gram-negative cells appear pink to red.

PARAMETER	LIMIT
Description	Pink coloured clear solution.
Solubility	Miscible with water.
Suitability test	Passes test.
Residue on evaporation	About 0.1% w/v

Directions

1. Prepare a thin smear on clear, dry glass slide.
2. Allow it to air dry and fix by gentle heat.
3. Flood with Gram's Crystal Violet for 1 minute. (If over staining results in improper decolorization of known gram-negative organisms, use less crystal violet).
4. Wash with tap water.
5. Flood the smear with Gram's Iodine. Allow it to remain for 1 minute.
6. Decolorize with Gram's Decolorizer until the blue dye no longer flows from the smear. (Acetone may be used as a decolorizing agent with caution, since this solvent very rapidly decolorized the smear).
7. Wash with tap water.
8. Counter stain with Basic fuchsin solution for 20 seconds and rinse off with water.
9. Wash with tap water.
10. Allow the slide to air dry or blot dry between sheets of clean bibulous paper and examine under oil immersion objective.

Results

Gram-positive microorganisms : violet

Gram-negative microorganisms : pinkish red

Note(s) : Assay (if applicable) method mentioned.

WARNING	IMDG Code :
Hazard --	UN No. :
Precautionary statements	IATA :
Prevention: --	
Response: --	
Disposal: --	
Hazard Pictogram(s) :-	

Replace date 20-Dec-2023