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ProductInformation

Glycerol

Product Number **G 5516**
Store at Room Temperature

Product Description

Molecular Formula: $C_3H_8O_3$
Molecular Weight: 92.1
CAS Number: 56-81-5
Melting point: 17.8 °C
Density: 1.26 g/ml
Synonyms: glycerin, 1,2,3-propanetriol

This product is designated as Molecular Biology grade and is suitable for molecular biology applications. It has been analyzed for the presence of nucleases and proteases.

Glycerol is a viscous liquid that is widely used in molecular biology research. Applications include purification of bacteriophage λ particles by step gradients, calcium-phosphate-mediated transfection of eukaryotic cells with plasmid DNA, DEAE-dextran-mediated transfection of DNA into cells, DNA sequencing reactions, and mediation of mispriming in PCR. Glycerol is used in the preparation of DNA and protein samples for both agarose and polyacrylamide gel electrophoresis. At 5-10% concentration, glycerol increases the density of a sample so that the sample will layer at the bottom of a sample well on the electrophoretic gel. Glycerol is also used in casting gradient gels.[2]

The use of glycerol in improved focusing of alkaline pH protein samples in immobilized pH gradient (IPG) strips has been published.[3] Studies of the effect of glycerol on separation of DNA fragments by capillary electrophoresis have been reported.[4]

Glycerol is used in the long-term stabilization of enzyme solutions and storage of bacterial stocks.[2] The specific gravity and freezing point values for various aqueous solutions of glycerol have been reported.[1]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Glycerol is miscible with water and alcohol at all concentrations.[1]

References

1. The Merck Index, 12th ed., Entry# 4493.
2. Molecular Cloning: A Laboratory Manual, 3rd ed., Sambrook, J. F., et al., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 2001), pp. 2.52-2.53, 8.9, 8.23, 8.78, 12,108-12.109, 13.90, 16.14-16.15, 16.28.
3. Hoving, S., et al., Preparative two-dimensional gel electrophoresis at alkaline pH using narrow range immobilized pH gradients. Proteomics, **2(2)**, 127-134 (2002).
4. Liang, D., et al., Effect of glycerol-induced DNA conformational change on the separation of DNA fragments by capillary electrophoresis. J. Chromatogr. A, **931(1-2)**, 163-173 (2001).

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