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ProductInformation

Glycine
Cell Culture Tested

Product Number **G 6388**
Store at Room Temperature

Product Description

Molecular Formula: $C_2H_5NO_2$
Molecular Weight: 75.07
CAS Number: 56-40-6
Synonyms: aminoacetic acid, aminoethanoic acid, glycocoll[1]
Abbreviations: Gly, G

This product is cell culture tested and plant cell culture tested. It is appropriate for use in cell culture and plant cell culture applications. This product has been replaced by the Biotechnology Performance Certified grade of glycine (Product No. G 8790).

The simplest of the amino acids, glycine plays various roles in biology. It is structurally unique among the biological amino acids in that it does not have an asymmetric center, and thus is not chiral. Glycine can be formed from serine through the action of serine hydroxymethyl transferase.[2] It is involved in the biosynthesis of the porphyrin rings of hemes and chlorophylls.[3] Glycine is also an important inhibitory neurotransmitter that acts principally in the spinal cord and the brain stem and causes an increase in the permeability of postsynaptic membranes to chloride ion.[2,3]

Glycine is commonly used in buffer solutions, in electrophoresis, and preparative chromatography. A reference on the preparation of glycine buffer solutions has been published.[4] A study of the folding of monoclonal antibodies in the presence of glycine and their subsequent purification has been published.[5]

The use of glycine in the purification of lipopolysaccharides, lipooligosaccharides, and lipid A has been reported.[6] Reviews of one-dimensional and two-dimensional SDS-polyacrylamide gel electrophoresis that discuss the use of glycine in the electrode buffer have been published.[7,8]

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a clear, colorless solution.

References

1. The Merck Index, 12th ed., Entry# 4500.
2. Textbook of Biochemistry with Clinical Correlations, Devlin, T. M., ed., Wiley-Liss (New York, NY: 1992), p. 932.
3. Biochemistry, 3rd ed., Stryer, L., W. H. Freeman (New York, NY: 1988), pp. 264, 594, 1026.
4. Stoll, V. S., and Blanchard, J. S., Buffers: Principles and Practice. Methods Enzymol., **182**, 24-38 (1990).
5. Narhi, L. O., et al., Effect of three elution buffers on the recovery and structure of monoclonal antibodies. Anal. Biochem., **253(2)**, 236-245 (1997).
6. Apicella, M. A., et al., Isolation and characterization of lipopolysaccharides, lipooligosaccharides, and lipid A. Methods Enzymol., **235**, 242-252 (1994).

7. Garfin, D. E., One-Dimensional Gel Electrophoresis. Methods Enzymol., **182**, 425-441 (1990).

8. Dunbar, B. S., et al., Protein Analysis Using High-Resolution Two-Dimensional Polyacrylamide Gel Electrophoresis. Methods Enzymol., **182**, 441-459 (1990).

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