Glycine
SigmaUltra

Product Number  G 7403
Store at Room Temperature

Product Description
Molecular Formula:  C₂H₅NO₂
Molecular Weight:  75.07
CAS Number:  56-40-6
Synonyms:  aminoacetic acid, aminoethanoic acid, glycocoll¹
Abbreviations:  Gly, G

Trace elemental analyses have been performed on the SigmaUltra glycine. The Certificate of Analysis provides lot-specific results. SigmaUltra glycine is for applications which require tight control of elemental content.

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.