

Glycine

Cell Culture Tested

Product Code: TC075

Product Description :

Molecular Weight: 75.07

Molecular Formula: $C_2H_5NO_2$

CAS No.: 56-40-6

Synonym: Aminoacetic acid, Aminoethanoic acid, Glycocoll

Glycine is a non-polar, hydrophobic, non-essential α -amino acid. It is the simplest and smallest amino acid among all the amino acids and is chemically neutral in nature.

It is used as a component of many animal and insect cell culture media. Some major functions of Glycine in cell culture involve synthesis of proteins in the cells. Hence it is also called proteinogenic amino acid. It also contributes towards cellular purine synthesis.

Glycine has buffering capacity and hence acts as an osmoprotectant for cells in culture. It participates in majority of anabolic reaction such as synthesis of heme, creatine and glutathione. Besides these, the glycine cleavage pathway is found to be associated with cell proliferation of several human tumor cell lines. Presence of glycine in conditioned medium enhances the growth of mouse and cattle embryos. Since glycine acts as an inhibitory neurotransmitter in brain and spinal cord, it is a prime target of many neuropsychopharmacologic agents.

Directions :

Preparation instructions:

For cell culture applications, glycine solutions can be prepared as per required concentrations in water.

Solutions can be sterilized by filtering through a sterile membrane filter with a porosity of 0.22 microns or less.

Quality Control:

Appearance

White crystals or crystalline powder.

Solubility

Clear colorless solution at 10gms in 100ml of water.

pH of 5% solution in water

5.90 - 6.40

FTIR

Matches with the standard pattern

Chloride (Cl)

NMT 0.01%

Assay

98.00% - 102.00%

Cell Culture Test

Passes

Storage and Shelf Life:

Store powder at room temperature in air tight containers and away from bright light.

Use before expiry date given on the product label.

Revision : 0 / 2016