

Product Data Sheet

Product Name: Glycine-d5

Cat. No.: GC49732

Chemical Properties

Cas. No. 4896-77-9

SMILES [2H]N([2H])C([2H])([2H])C(O[2H])=O

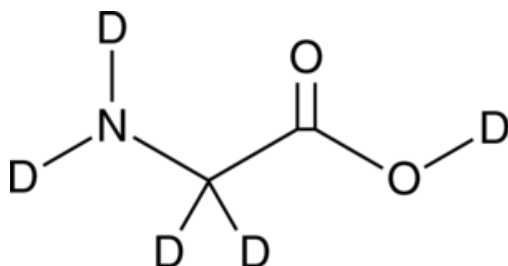
Formula C2D5NO2 M.Wt 80.1

Solubility Ethanol: 1 mg/ml, PBS (pH 7.2): 1 mg/ml Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Glycine-d5 is intended for use as an internal standard for the quantification of glycine by GC- or LC-MS. Glycine is a conditionally essential amino acid and the major inhibitory neurotransmitter in the spinal cord and brainstem.^{1,2} It is synthesized from threonine, choline, hydroxyproline, and serine via interorgan metabolism between the liver and kidneys.² It can also be derived from dietary sources. Glycine is essential to protein synthesis and the conjugation of bile acids and is a precursor in glutathione, purine, heme, and serine synthesis.

1. Zafrá, F., Aragón, C., Olivares, L., et al. Glycine transporters are differentially expressed among CNS cells. *J. Neurosci.* 15(5 Pt 2):3952-3969 (1995) 2. Wang, W., Wu, Z., Dai, Z., et al. Glycine metabolism in animals and humans: Implications for nutrition and health. *Amino Acids* 45(3):463-477 (2013)

Caution: Product has not been fully validated for medical applications. For research use only.

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