
Product Data Sheet

Product Name: L-Cysteine-1-13C

Cat. No.: GC68382

Chemical Properties

Cas. No. 224054-24-4

Formula $C_2^{13}CH_7NO_2S$

M.Wt 122.15

Solubility H_2O : 33.33 mg/mL (272.86 mM; Need ultrasonic); H_2O : 5 mg/mL (40.93 mM; ultrasonic and warming and heat to 60°C) Storage at -20°C

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

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

Structure **Background**

L-Cysteine-1-13C is the 13C-labeled L-Cysteine. L-Cysteine is a conditionally essential amino acid, which acts as a precursor for biologically active molecules such as hydrogen sulphide (H_2S), glutathione and taurine. L-Cysteine suppresses ghrelin and reduces appetite in rodents and humans^[1].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA