
Product Data Sheet

Product Name: γ -Aminobutyric acid-d6

Cat. No.: GC64508

Chemical Properties

Cas. No. 70607-85-1

Formula $C_4H_3D_6NO_2$

M.Wt 109.16

Solubility H_2O : 50 mg/mL (458.04 mM; Need ultrasonic)

Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

γ -Aminobutyric acid-d6 (4-Aminobutyric acid-d6) is the deuterium labeled γ -Aminobutyric acid. γ -Aminobutyric acid (4-Aminobutyric acid) is a major inhibitory neurotransmitter in the adult mammalian brain[1][2], binding to the ionotropic GABA receptors (GABAA receptors) and metabotropic receptors (GABAB receptors)[2].

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. [2]. Chen S, et al. Effects of dietary gamma-aminobutyric acid supplementation on the intestinal functions in weaning piglets. *Food Funct.* 2019 Jan 2.

[3]. Okada R, et al. Gamma-aminobutyric acid (GABA)-mediated neural connections in the *Drosophila* antennal lobe. *J Comp Neurol.* 2009 May 1;514(1):74-91.

[4]. Watanabe M, et al. GABA and GABA receptors in the central nervous system and other organs. *Int Rev Cytol.* 2002;213:1-47.

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

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