
Product Data Sheet

Product Name: Dopamine-d5 hydrochloride

Cat. No.: GC68997

Chemical Properties

Cas. No. 2193106-55-5

Formula $C_8H_7D_5ClNO_2$ M.Wt 194.67

Solubility Storage Store at -20°C, away from moisture

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

Dopamine-d₅ (drochloride) is the deuterium labeled Dopamine (drochloride). Dopamine drochloride (ASL279) is a catecholamine neurotransmitter that is produced in the substantia nigra, ventral tegmental area, and pothalamus of the brain. Dopamine drochloride (ASL279) plays several important roles in the brain and body[1]. Dopamine drochloride (ASL279) acts through D2 dopamine receptors to induce endocytosis of VEGFR2, which is critical for promoting angiogenesis[1].

Stable heavy isotopes of drogen, 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]. Juárez Olguín H, et al. The Role of Dopamine and Its Dysfunction as a Consequence of Oxidative Stress. *Oxid Med Cell Longev.* 2016;2016:9730467.

[3]. Basu S, et al. The neurotransmitter dopamine inhibits angiogenesis induced by vascular permeability factor/vascular endothelial growth factor. *Nat Med.* 2001

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

Product Data Sheet

May;7(5):569-74.

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