Data Sheet (Cat.No.T35591)

TargetMol

Guanfacine-13C,15N3

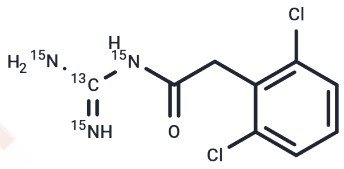
Chemical Properties

CAS No. : 1189924-28-4

Formula: C9H9Cl2N3O

Molecular Weight: 250.06

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Guanfacine-13C,15N3 is intended for us as an internal standard for the quantification of guanfacine by GC- or LC-MS. Guanfacine (T22824) is an α2-adrenergic receptor (α2-AR) agonist with Kivalues of 93, 1,380, and 3,890 nM for α2A-, α2B-, and α2C-ARs, respectively, in a radioligand binding assay.1It has EC50values of 52, 288, and 602 nM for α2A-, α2B-, and α2C-ARs, respectively, for stimulated [35S]GTPγS binding. It also binds to imidazoline receptor 1 (Ki= 19 nM in a radioligand binding assay).2Guanfacine (0.3-5 mg/kg) binds to adrenergic receptors in the central nervous system and lowers blood pressure in hypertensive rats in a dose-dependent manner.3It also improves spatial working memory deficits induced by hypobaric hypoxia in rats.4Formulations containing guanfacine are used in the treatment of high blood pressure and attention deficit hyperactivity disorder (ADHD).
Targets(IC50)	Adrenergic Receptor

Solubility Information

Solubility	Methanol: Slightly soluble,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.999 mL	19.9952 mL	39.9904 mL
5 mM	0.7998 mL	3.999 mL	7.9981 mL
10 mM	0.3999 mL	1.9995 mL	3.999 mL
50 mM	0.080 mL	0.3999 mL	0.7998 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Jasper, J.R., Lesnick, J.D., Chang, L.K., et al.Ligand efficacy and potency at recombinant α2 adrenergic receptors: Agonist-mediated [35S]GTPγS bindingBiochem. Pharmacol.55(7)1035-1043(1998)
Nikolic, K., Filipic, S., and Agbaba, D.QSAR study of imidazoline antihypertensive drugsBioorg. Med. Chem.16(15) 7134-7140(2008)
Scholtysik, G.Pharmacology of guanfacineBr. J. Clin. Pharmacol.10(Suppl 1)21S-24S(1980)
Kauser, H., Sahu, S., Kumar, S., et al.Guanfacine is an effective countermeasure for hypobaric hypoxia-induced cognitive declineNeuroscience254110-119(2013)

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