
Product Data Sheet

Product Name: Bradanicline

Cat. No.: GC64064

Chemical Properties

Cas. No. 639489-84-2

Formula C₂₂H₂₃N₃O₂

M.Wt 361.44

Solubility DMSO : 25 mg/mL (69.17 mM; ultrasonic and warming and heat to 60°C)

Storage Store 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**

Bradanicline is a highly selective $\alpha 7$ nicotinic acetylcholine receptor (nAChR) agonist (human $\alpha 7$ nAChR: EC₅₀=17 nM; K_i= 1.4 nM). Bradanicline is used for the research of cognitive disorders[1][2].

Bradanicline is more than a thousand-fold separation between the affinities for the $\alpha 7$ and $\alpha 4\beta 2$ receptor subtypes and has no detectable effects on muscle or ganglionic nicotinic receptor subtypes, indicating a marked selectivity for the central nervous system over the peripheral nervous system[1].

Bradanicline (0.1-1 mg/kg) shows efficacy in animal models of the positive and negative symptoms and cognitive dysfunction of schizophrenia[2].

[1]. Mazurov AA, et al. Discovery of (2S,3R)-N-[2-(pyridin-3-ylmethyl)-1-azabicyclo[2.2.2]oct-3-yl]benzo[b]furan-2-carboxamide (TC-5619), a selective $\alpha 7$ nicotinic acetylcholine receptor agonist, for the treatment of cognitive disorders. J Med Chem. 2012;55(22):9793-9809. [2]. Hauser TA, et al. TC-5619: an alpha7 neuronal nicotinic receptor-selective agonist that demonstrates efficacy in animal models of the positive and negative symptoms and cognitive dysfunction of schizophrenia. Biochem

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

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Pharmacol. 2009;78(7):803-812.

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