Data Sheet (Cat.No.T37599)

TargetMol

DA-JC4

Chemical Properties

CAS No. : 2315504-40-4

Formula: C225H346N56O65

Molecular Weight: 4875.49

Storage: Keep away from moisture
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	DA-JC4 is a compound with dual GLP-1/GIP receptor agonist properties. It is recommended for use in researching neurological diseases and investigating insulin signaling pathways[1][2][3].
Targets(IC50)	IGF-1R
In vitro	DA-JC4 (1~100 nM; hippocampal cells) effectively prevents rotenone-induced hippocampal neuron death and significantly reduces the activation of Cyt C, Bax, and Caspases[3].
In vivo	DA-JC4 (10 nmol/kg; i.p.; once daily for 14 days) significantly prevents spatial learning deficits in Y-maze and Morris water maze tests, and decreases phosphorylated tau levels in the rat cerebral cortex and hippocampus[1]. DA-JC4 (25 nmol/kg; i.p.; 6 days) shows high expression levels of tyrosine hydroxylase in the substantia nigra and increases expression of the neuroprotective growth factor Glial-Derived Neurotrophic Factor (GDNF)[2]. DA-JC4 (50 nmol/kg; i.p.; once daily for 7 days) potentially improves Parkinson's disease symptoms and enhances neurotransmission[3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2051 mL	1.0255 mL	2.0511 mL
5 mM	0.041 mL	0.2051 mL	0.4102 mL
10 mM	0.0205 mL	0.1026 mL	0.2051 mL
50 mM	0.0041 mL	0.0205 mL	0.041 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

Shi L, et al. A novel dual GLP-1/GIP receptor agonist alleviates cognitive decline by re-sensitizing insulin signaling in the Alzheimer icv. STZ rat model. Behav Brain Res. 2017;327:65-74.
Feng P, et al. Two novel dual GLP-1/GIP receptor agonists are neuroprotective in the MPTP mouse model of Parkinson's disease. Neuropharmacology. 2018;133:385-394.
Li T, et al. Neuroprotection of GLP-1/GIP receptor agonist via inhibition of mitochondrial stress by AKT/JNK pathway in a Parkinson's disease model. Life Sci. 2020;256:117824.

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