

Tat- β syn-degron TFA

Chemical Properties

CAS No. :

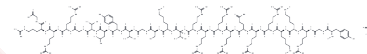
Formula: C132H237N59O31.XCF3COOH

Molecular Weight: 3146.67

Keep away from moisture

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	Tat- β syn-degron, an α -synuclein knockdown peptide, integrates three domains: the HIV-1 Tat plasma membrane transduction domain, an α -synuclein binding domain (β syn) representing amino acids 36-45 of β -synuclein, and a proteasomal targeting domain (degron). It effectively binds to recombinant α -synuclein, demonstrating a significant reduction in α -synuclein levels in primary rat cortical neuron cultures.
In vivo	Administering Tat- β syn-degron at 40 mg/kg reduces α -synuclein levels in the brains of M38 transgenic mice overexpressing human A53T mutant α -synuclein. It also diminishes phosphorylated α -synuclein levels in the substantia nigra and the pons, alongside neuroinflammation in mice exposed to α -synuclein preformed fibrils, simulating spreading synucleinopathy. Furthermore, at a dosage of 6 μ mol/kg intraperitoneally, Tat- β syn-degron ameliorates dopaminergic neuron loss and improves motor deficits in mice suffering from MPTP-induced Parkinson's disease, underscoring its potential therapeutic benefit.

Solubility Information

Solubility	DMF: 50 mg/mL (15.89 mM), Sonication is recommended. PBS pH 7.2: 1 mg/mL (0.32 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3178 mL	1.589 mL	3.178 mL
5 mM	0.0636 mL	0.3178 mL	0.6356 mL
10 mM	0.0318 mL	0.1589 mL	0.3178 mL
50 mM	0.0064 mL	0.0318 mL	0.0636 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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