

X5050

Chemical Properties

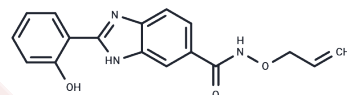
CAS No. : 2404756-81-4

Formula: C17H15N3O3

Molecular Weight: 309.325

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	X5050, a REST inhibitor, has an EC50 of 2.1 μ M.
Targets(IC50)	Others,DNA/RNA Synthesis
In vitro	X5050 (100 μ M, 1 day) induces a dosedependent decrease in the REST isoform in protein level[1]. Western Blot Analysis[1]Cell Line: NSCs. Concentration: 100 μ M. Incubation Time: One day. Result: Induced a dosedependent decrease in the 122 kDa longer REST isoform.
In vivo	X5050, administered in two intraventricular injections (2 x 2 μ l of 20 mM) in a 10% DMSO aqueous solution, demonstrates activity in Huntington's Disease (HD) contexts. Utilizing 12-week-old male C57Bl6 mice as an animal model, the compound resulted in a significant increase in Brain-Derived Neurotrophic Factor (BDNF) expression, alongside a decrease in both Darpp32 and Snap25 expressions, as evidenced by Quantitative Reverse Transcription PCR (QRT-PCR) in the lesioned versus contralateral striatum. Additionally, it was observed that X5050 significantly elevated the levels of the Bdnf II splice variant, which contains exon II, whereas the levels of Bdnf IV splice variant remained unchanged.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2328 mL	16.164 mL	32.3279 mL
5 mM	0.6466 mL	3.2328 mL	6.4656 mL
10 mM	0.3233 mL	1.6164 mL	3.2328 mL
50 mM	0.0647 mL	0.3233 mL	0.6466 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

J r mie Charbord, et al. High throughput screening for inhibitors of REST in neural derivatives of human embryonic stem cells reveals a chemical compound that promotes expression of neuronal genes. Stem Cells. 2013 Sep;31(9): 1816-28.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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