X5050

Cat. No.: HY-136833

CAS No.: 2404756-81-4

Molecular Formula: $C_{17}H_{15}N_3O_3$

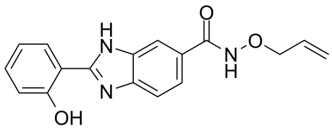
Molecular Weight: 309.32

Target: Others

Pathway: Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (323.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2329 mL	16.1645 mL	32.3290 mL
	5 mM	0.6466 mL	3.2329 mL	6.4658 mL
	10 mM	0.3233 mL	1.6164 mL	3.2329 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

X5050 is a REST inhibitor, with an EC_{50} of 2.1 μM[1].

In Vitro

X5050 (100 μM, 1 day) induces a dosedependent decrease in the REST isoform in protein level[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	NSCs.
Concentration:	100 μM.
Incubation Time:	One day.
Result:	Induced a dosedependent decrease in the 122 kDa longer REST isoform.

In Vivo

X5050 (2 x 2μl of 20 mM) is active in HD pathological context[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	12-week-old male C57Bl6 mice[1].2
Dosage:	2 x 2μl of 20 mM in 10% DMSO in water.
Administration:	Intraventricular injection.
Result:	Increased BDNF expression. A decrease in Darpp32 and Snap25 expression was found by QRT-PCR in the lesioned striatum as compared with the contralateral striatum. Significantly increased the levels of Bdnf II splice variant (exon II containing variant) while Bdnf IV levels were not significantly changed.

REFERENCES

[1]. Jérémie 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.

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