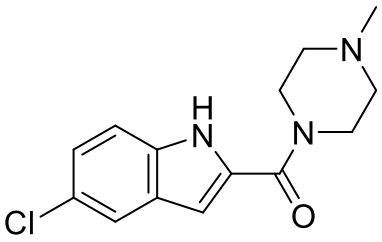
Product data sheet

MedKoo Cat#: 522409 Name: JNJ7777120 CAS: 459168-41-3 Chemical Formula: $C_{14}H_{16}ClN_3O$ Exact Mass: 277.0982 Molecular Weight: 277.752	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
JNJ7777120 is a potent and selective histamine H4 receptor antagonist. JNJ7777120 induces increases in the histamine content of the rat conjunctiva. In vivo studies showed that JNJ7777120 significantly suppressed nasal symptoms and the number of coughs. JNJ7777120 significantly inhibited airway reactivity to histamine.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	20.0	72.01
DMF:PBS (pH 7.2) (1:1)	0.5	1.80
DMSO	33.47	120.51
Ethanol	5.0	18.00

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.60 mL	18.00 mL	36.00 mL
5 mM	0.72 mL	3.60 mL	7.20 mL
10 mM	0.36 mL	1.80 mL	3.60 mL
50 mM	0.07 mL	0.36 mL	0.72 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Thurmond RL, Desai PJ, Dunford PJ, Fung-Leung WP, Hofstra CL, Jiang W, Nguyen S, Riley JP, Sun S, Williams KN, Edwards JP, Karlsson L. A potent and selective histamine H4 receptor antagonist with anti-inflammatory properties. J Pharmacol Exp Ther. 2004 Apr;309(1):404-13. doi: 10.1124/jpet.103.061754. Epub 2004 Jan 13. PMID: 14722321.

In vivo study

1. Yeni Y, Cakir Z, Hacimuftuoglu A, Taghizadehghalehjoughi A, Okkay U, Genc S, Yildirim S, Saglam YS, Calina D, Tsatsakis A, Docea AO. A Selective Histamine H4 Receptor Antagonist, JNJ7777120, Role on glutamate Transporter Activity in Chronic Depression. J Pers Med. 2022 Feb 9;12(2):246. doi: 10.3390/jpm12020246. PMID: 35207733; PMCID: PMC8880293.
2. Dettori I, Gaviano L, Melani A, Lucarini L, Durante M, Masini E, Pedata F. A Selective Histamine H4 Receptor Antagonist, JNJ7777120, Is Protective in a Rat Model of Transient Cerebral Ischemia. Front Pharmacol. 2018 Oct 29;9:1231. doi: 10.3389/fphar.2018.01231. PMID: 30420807; PMCID: PMC6215858.

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7. Bioactivity

Biological target:

JNJ-7777120 is a selective H4R antagonist with Ki of 4 ±1 nM, exhibits >1000-fold selectivity over the other histamin receptors.

In vitro activity

JNJ 7777120 blocks histamine-induced chemotaxis and calcium influx in mouse bone marrow-derived mast cells.

Reference: J Pharmacol Exp Ther. 2004 Apr;309(1):404-13. https://pubmed.ncbi.nlm.nih.gov/14722321/

In vivo activity

The treatment with JNJa (JNJ7777120 20 mg/kg) (1809 cm) and JNJb (JNJ7777120 40 mg/kg) (2111 cm) increased the locomotor activity of mild stress rats, the effect being similar to those produced by the known antidepressant drugs. In the case of JNJ the effect was dose-dependent, the locomotor activity in group JNJb being significantly increased compared with the one obtained for the group JNJa.

Reference: J Pers Med. 2022 Feb 9;12(2):246. https://pubmed.ncbi.nlm.nih.gov/35207733/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.