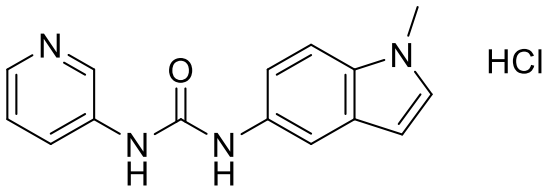
Product data sheet

MedKoo Cat#: 462281 Name: SB-200646 HCl CAS#: 143797-62-0 Chemical Formula: $C_{15}H_{15}ClN_4O$ Molecular Weight: 302.76	
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:
SB-200646 HCl is a dual antagonist of the serotonin (5-HT) receptor subtypes 5-HT2C and 5-HT2B.

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
DMSO	250	825.74

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.30 mL	16.51 mL	33.03 mL
5 mM	0.66 mL	3.30 mL	6.61 mL
10 mM	0.33 mL	1.65 mL	3.30 mL
50 mM	0.07 mL	0.33 mL	0.66 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

To be determined

In vivo study

1. Blackburn TP, Suzuki K, Ashby CR Jr. The acute and chronic administration of the 5-HT(2B/2C) receptor antagonist SB-200646A significantly alters the activity of spontaneously active midbrain dopamine neurons in the rat: An in vivo extracellular single cell study. Synapse. 2006 Jun 15;59(8):502-12. doi: 10.1002/syn.20263. PMID: 16565966.
2. Meneses A. Involvement of 5-HT(2A/2B/2C) receptors on memory formation: simple agonism, antagonism, or inverse agonism? Cell Mol Neurobiol. 2002 Dec;22(5-6):675-88. doi: 10.1023/a:1021800822997. PMID: 12585687.

7. Bioactivity
Biological target:

SB-200646 is a dual antagonist of 5-HT receptor subtypes 5-HT2C (Ki = 125 nM in isolated rat cortex) and 5-HT2B (pA2 = 7.5 in rat stomach fundus preparations). It is selective for 5-HT2C and 5-HT2B over 5-HT1A, 5-HT2A, 5-HT1D, 5-HT3, benzodiazepine, GABAA, α1-, α2A-, α2B-, β1-, and β2-adrenergic, dopamine D1 and D2, and histamine H1 receptors (Kis = >10 μM for all).

In vitro activity

To be determined

In vivo activity

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Acute and chronic administration of SB-200646 HCl resulted in various changes in the firing rate, bursting activity, and number of spontaneously active dopamine neurons in the substantia nigra pars compacts and ventral tegmental area of anesthetized rats. Specifically, the administration of SB-200646 HCl led to alterations in firing patterns and neuronal activity resembling those associated with atypical antipsychotic drugs.

Reference: Synapse. 2006 Jun 15;59(8):502-12. https://pubmed.ncbi.nlm.nih.gov/16565966/

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.