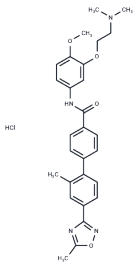
# Data Sheet (Cat.No.T23315)

TargetMol

## SB 216641 hydrochloride

### Chemical Properties



CAS No. : 193611-67-5

Formula: C28H31ClN4O4

Molecular Weight: 523.02

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

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|---|---|
| Description | SB 216641 hydrochloride (SB-216641A) is a selective 5-$HT_1$B/D receptor antagonist with binding affinities (K_i) of 0.9 nM and 1.8 nM for human and rat 5-$HT_1$B receptors, respectively. SB 216641 hydrochloride is primarily used in studies of 5-$HT_1$B-mediated neuroregulation, migraine, anxiety, and vascular responses. |
| Targets(IC50) | 5-HT Receptor |
| In vivo | **Methods**: Newborn Wistar rats received two subcutaneous injections of DSP-4 (50 mg/kg) on days 1 and 3 postnatal. At adulthood (10 weeks), neostigmine (4.0 mg/kg) administered 30 minutes prior to CP 94,253 (4.0 mg/kg) reduced norepinephrine levels in the medial prefrontal cortex by approximately 95%, confirming successful lesion formation. Adult control and DSP-4 groups received CP 94,253 (4.0 mg/kg) and SB 216641 hydrochloride (4.0 mg/kg) administered 30 minutes prior to the agonist.<br>**Results**: In the control group, CP 94,253 induced an anxiety-like effect (significant increase in time spent in the closed arm), which was blocked by SB 216641 hydrochloride. [1]<br>**Methods**: Four female Beagle dogs (12-16 kg) underwent surgical gastric intubation. SB 216641 hydrochloride (559 nmol/kg) was administered intravenously 30 minutes before the fourth round of dilation. Sumatriptan was administered intravenously 15 minutes before the fourth round of dilation.<br>**Results**: Sumatriptan promotes gastric receptivity via 5-HT1B receptors. [2] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 72.14 mg/mL (137.93 mM)<br>H2O: 20 mg/mL (38.24 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.912 mL | 9.5599 mL | 19.1197 mL |
| 5 mM | 0.3824 mL | 1.912 mL | 3.8239 mL |
| 10 mM | 0.1912 mL | 0.956 mL | 1.912 mL |
| 50 mM | 0.0382 mL | 0.1912 mL | 0.3824 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

Ferdyn-Drosik M, et al. Neonatal DSP-4 treatment impairs 5-HT(1B) receptor reactivity in adult rats. Behavioral and biochemical studies. Pharmacol Rep. 2010 Jul-Aug;62(4):608-20.
De Ponti F, et al. Role of 5-HT1B/D receptors in canine gastric accommodation: effect of sumatriptan and 5-HT1B/D receptor antagonists. Am J Physiol Gastrointest Liver Physiol. 2003 Jul;285(1):G96-104.