# SB228357

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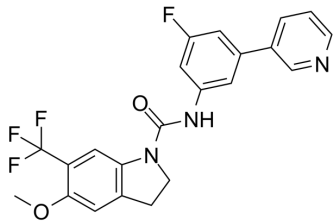
| **Cat. No.:** | HY-103154 |
| **CAS No.:** | 181629-93-6 |
| **Molecular Formula:** | $C_{22}H_{17}F_4N_3O_2$ |
| **Molecular Weight:** | 431.38 |
| **Target:** | 5-HT Receptor |
| **Pathway:** | GPCR/G Protein; Neuronal Signaling |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (289.77 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.3181 mL | 11.5907 mL | 23.1814 mL |
| | 5 mM | 0.4636 mL | 2.3181 mL | 4.6363 mL |
| | 10 mM | 0.2318 mL | 1.1591 mL | 2.3181 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

SB228357 is a selective, potent and orall active 5-$HT_{2C/2B}$ receptor antagonist with $pK_i$ values of 6.9, 8.0 and 9.0 for 5-$HT_{2A}$, 5-$HT_{2B}$ and 5-$HT_{2C}$, respectively. SB228357 has antidepressant/anxiolytic effects[1][2].

| $IC_{50}$ & Target | | | |
|---|---|---|---|
| | 5-$HT_{2A}$ Receptor<br>6.9 (pKi) | 5-$HT_{2C}$ Receptor<br>9 (pKi) | 5-$HT_{2B}$ Receptor<br>8 (pKi) |

**In Vivo**

SB228357 (0-10 mg/kg; oral administration; for 90 minutes; male Sprague Dawley rats) treatment significantly reverses Haloperidol-induced catalepsy[2].

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

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| Animal Model: | Male Sprague Dawley rats (200-250 g) injected with Haloperidol[2] |
| Dosage: | 0 mg/kg, 0.32 mg/kg, 1 mg/kg, 3.2 mg/kg, 10 mg/kg |

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| Administration: | Oral administration; for 90 minutes |
| Result: | Significantly reversed Haloperidol-induced catalepsy. |

## REFERENCES

[1]. Bromidge SM, et al. Biarylcarbamoylindolines are novel and selective 5-HT(2C) receptor inverse agonists: identification of 5-methyl-1-[[2-[(2-methyl-3-pyridyl)oxy]- 5-pyridyl]carbamoyl]-6-trifluoromethylindoline (SB-243213) as a potential antidepressant/a

[2]. Reavill C, et al. Attenuation of haloperidol-induced catalepsy by a 5-HT2C receptor antagonist. Br J Pharmacol. 1999 Feb;126(3):572-4.



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