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产品名称：
R-(-)-7-Chloro-8-hydroxy-3-methyl-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine, hydrochloride
产品别名：SCH 23390 hydrochloride； R-(+)-SCH23390 hydrochloride

生物活性：

Description	SCH 23390 hydrochloride is a potent dopamine receptor D1 antagonist with K_i values of 0.2 and 0.3 nM for the D1 and D5.
IC_{50} & Target	Ki: 0.2 nM (D1), 0.3 nM (D5)[1]
In Vivo	SCH 23390 has been a major tool in gaining a better understanding of the role of the dopamine system. SCH 23390 is a very short-acting compound with an elimination half-life of around 25 min following administration of 0.3 mg/kg i.p. in the rat[1]. The repeated administration of SCH 23390 (0.05 mg/kg s.c., thrice daily for 21 days) enhances the steady-state density of dopamine D1 receptors in the striatum (+30%) and substantia nigra (+24%). This treatment also increases the production rates of dopamine D1 receptors in the striatum (+44%) and substantia nigra (+54%)[4]. Systemic SCH 23390 reduces saccharin seeking evidenced by a significant reduction in active lever responding and a significant reduction in the number of active lever-contingent deliveries of the tone + light cue following pretreatment with 10 μg/kg SCH 23390[5].

Solvent&Solubility

In Vitro:

DMSO : ≥ 32 mg/mL (98.69 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0841 mL	15.4207 mL	30.8414 mL
	5 mM	0.6168 mL	3.0841 mL	6.1683 mL
	10 mM	0.3084 mL	1.5421 mL	3.0841 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline

Solubility: ≥ 2.08 mg/mL (6.42 mM); Clear solution

此方案可获得 ≥ 2.08 mg/mL (6.42 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 20.8 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；

	向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。
References	[1]. Bourne JA, et al . SCH 23390: the first selective dopamine D1-like receptor antagonist. CNS Drug Rev. 2001 Winter;7(4):399-414. [2]. Millan MJ, et al. The "selective" dopamine D1 receptor antagonist, SCH23390, is a potent and high efficacy agonist at cloned human serotonin2C receptors. Psychopharmacology (Berl). 2001 Jun;156(1):58-62. [3]. Kuzhikandathil EV, et al. Classic D1 dopamine receptor antagonist R-(+)-7-chloro-8-hydroxy-3-methyl-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine hydrochloride (SCH23390) directly inhibits G protein-coupledinwardly rectifying potassium channels. Mol Pharmacol. 2002 Jul;62(1):119-26. [4]. Giorgi O, et al. Chronic treatment with SCH 23390 increases the production rate of dopamine D1 receptors in the nigro-striatal system of the rat. Eur J Pharmacol. 1993 Apr 15;245(2):139-45. [5]. Aoyama K, et al. Systemic injection of the DAD1 antagonist SCH 23390 reduces saccharin seeking in rats. Appetite. 2016 Oct 1;105:8-13.

实验参考：

Animal Administration	Rats: All rats receive acclimatization saline injections the two afternoons 1 prior to 2 their test day. At the end of the Training phase, rats (n=15 or 16 rats/group) are assigned to one 3 of three conditions (0, 1, or 10 μg/kg IP injections of SCH 23390). The day following the Training phase, rats are tested in the operant 6 conditioning chambers for saccharin cue-reactivity (saccharin seeking)[5].
References	[1]. Bourne JA, et al . SCH 23390: the first selective dopamine D1-like receptor antagonist. CNS Drug Rev. 2001 Winter;7(4):399-414. [2]. Millan MJ, et al. The "selective" dopamine D1 receptor antagonist, SCH23390, is a potent and high efficacy agonist at cloned human serotonin2C receptors. Psychopharmacology (Berl). 2001 Jun;156(1):58-62. [3]. Kuzhikandathil EV, et al. Classic D1 dopamine receptor antagonist R-(+)-7-chloro-8-hydroxy-3-methyl-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine hydrochloride (SCH23390) directly inhibits G protein-coupledinwardly rectifying potassium channels. Mol Pharmacol. 2002 Jul;62(1):119-26. [4]. Giorgi O, et al. Chronic treatment with SCH 23390 increases the production rate of dopamine D1 receptors in the nigro-striatal system of the rat. Eur J Pharmacol. 1993 Apr 15;245(2):139-45. [5]. Aoyama K, et al. Systemic injection of the DAD1 antagonist SCH 23390 reduces saccharin seeking in rats. Appetite. 2016 Oct 1;105:8-13.