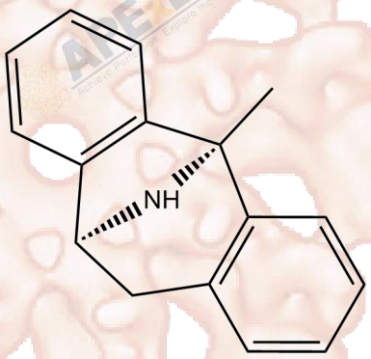
Product Data Sheet

(-)-MK 801



Cat. No.: B1627

CAS No.: 121917-57-5

Formula: C16H15N

M.Wt: 221.30

Synonyms:

Target: Membrane Transporter/Ion Channel

Pathway: NMDA Receptor

Storage: Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾10.3 mg/mL in DMSO; ⩾12.2 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	4.5188 mL	22.5938 mL	45.1875 mL
5 mM	0.9038 mL	4.5188 mL	9.0375 mL
10 mM	0.4519 mL	2.2594 mL	4.5188 mL

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

Biological Activity

Shortsummary	NMDA antagonist,potent and selective
IC_{50} & Target	

In Vitro

Cell Viability Assay

Preparation method：	The solubility of this compound in DMSO is > 10.3 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
Reacting conditions:	75 nM; 2 hrs
Applications:	In rat cortical slices, (-)-MK 801 potently blocked N-Me-D-Asp-induced

		depolarizing responses. At the concentrations of 75 nM and above, (-)-MK 801 irreversibly inhibited N-Me-D-Asp responses and thus, the effect of (-)-MK 801 was persistent. However, (-)-MK 801 acted slowly, reaching its maximal effect only after 90 ~ 120 mins of continuous superfusion.
In Vivo	**Animal experiment**	
	Animal models:	A rat model of ischemic spinal cord injury
	Dosage form:	1 mg/kg; i.v.
	Applications:	In a rat model of ischemic spinal cord injury, (-)-MK 801 significantly improved neurological outcome and recovery. Moreover, histopathology results showed that (-)-MK 801 reduced injuries in the lumbar gray matter. These results demonstrated that a single dose of (-)-MK 801 given before ischemic spinal cord injury exerted significant neuroprotection effect.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Wong EH, Kemp JA, Priestley T, Knight AR, Woodruff GN, Iversen LL . The anticonvulsant MK-801 is a potent N-methyl-D-aspartate antagonist. Proc Natl Acad Sci U S A. 1986 Sep;83(18):7104-8.

[2]. Kocaeli H, Korfali E, Oztürk H, Kahveci N, Yilmazlar S. MK-801 improves neurological and histological outcomes after spinal cord ischemia induced by transient aortic cross-clipping in rats. Surg Neurol. 2005;64 Suppl 2:S22-6; discussion S27.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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