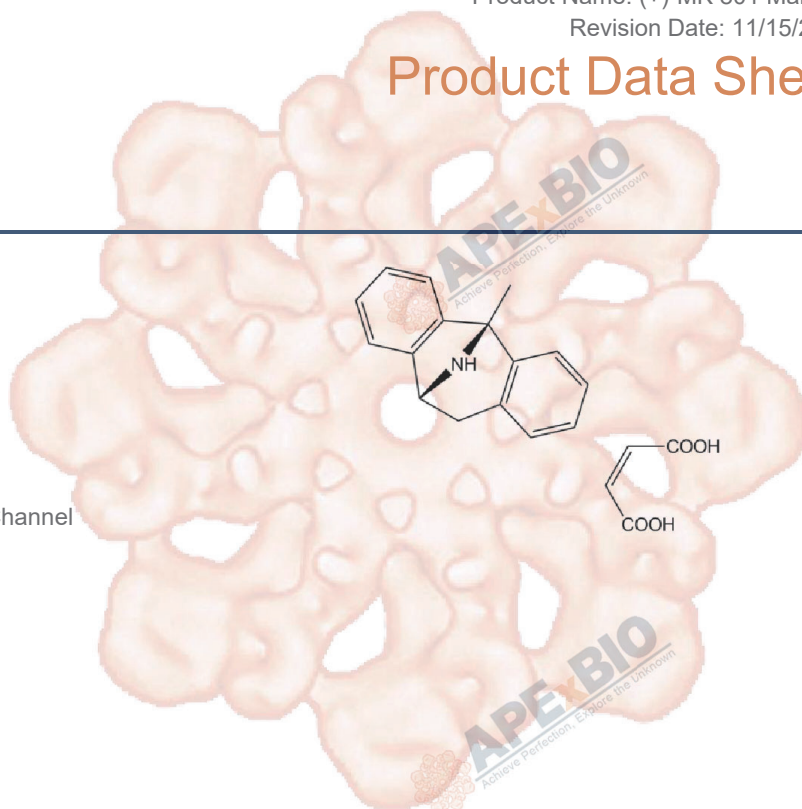


Product Data Sheet

(+)-MK 801 Maleate

Cat. No.:	A8896
CAS No.:	77086-22-7
Formula:	C20H19NO4
M.Wt:	337.37
Synonyms:	
Target:	Membrane Transporter/Ion Channel
Pathway:	NMDA Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥16.85 mg/mL in DMSO; ≥28.5 mg/mL in EtOH; ≥5.12 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.9641 mL	14.8205 mL	29.6410 mL
	5 mM	0.5928 mL	2.9641 mL	5.9282 mL
	10 mM	0.2964 mL	1.4821 mL	2.9641 mL

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

Biological Activity

Shortsummary

Potent NMDA antagonist

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Primary mixed neuronal/glial cultures from fetal rat brains.
Preparation method:	The solubility of this compound in DMSO is >16.9mg/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:	10 μM for 30 minutes

	Applications:	NMDA induced apoptosis in mixed neuronal/glial cell cultures. In the presence of a mild excitotoxic insult, this investigation showed an attenuation of apoptotic cell death by MK 801.
In Vivo	Animal experiment	
	Animal models:	C57BL/6; BALB/c mice
	Dosage form:	s.c. or i.p., 0.1 mg kg(-1)
	Applications:	MK 801 in the chronically C57BL/6 chronic stress group that prevented weight gain deficit. For the C57BL/6 strain chronic MK 801 produced an alteration of the fur state. In the CA1 layer of chronically stressed C57BL/6 mice, MK 801 induced an increase of VGLUT1 immunoreactivity. For the BALB/c group, MK 801 enhanced BDNF mRNA in the chronic stress group in the DG. In the chronically stressed BALB/c mice, MK 801 prevented stressed induced VGLUT3 immunoreactivity up-regulation in the CA3 layer.
	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]. Wise-Faberowski L, Pearlstein RD, Warner DS., et al. NMDA-induced apoptosis in mixed neuronal/glial cortical cell cultures: the effects of isoflurane and dizocilpine. J Neurosurg Anesthesiol. 2006 Oct;18(4):240-6.
- [2]. Farley S, Dumas S, El Mestikawy S., et al. Increased expression of the Vesicular Glutamate Transporter-1 (VGLUT1) in the prefrontal cortex correlates with differential vulnerability to chronic stress in various mouse strains: effects of fluoxetine and MK-801. Neuropharmacology. 2012 Jan;62(1):503-17.

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. Short-term 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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