

# MPTP (hydrochloride)

Catalog No: tcsc1337



## Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

23007-85-4

**Formula:**

$C_{12}H_{16}ClN$

**Pathway:**

Others

**Target:**

Others

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 12 mg/mL (57.22 mM; Need ultrasonic and warming); H<sub>2</sub>O : ≥ 105 mg/mL (500.67 mM)

**Observed Molecular Weight:**

209.72

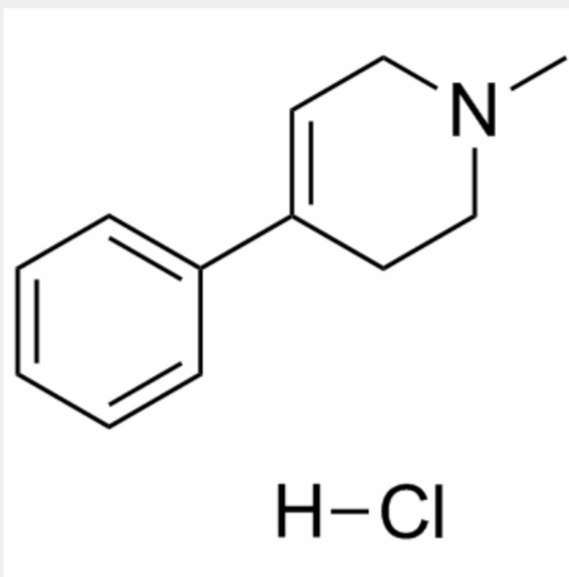
## Product Description

MPTP hydrochloride is a brain penetrant **dopamine** neurotoxin, inducing Parkinson's Disease.

**In Vitro:** Pretreatment with 50 mM 4-phenylpyridine, reduces IC<sub>50</sub> (concentration for 50% inhibition of twitch amplitude) values of

MPTP from 53 to 18 mM and d-tubocurarine from 0.7 to 0.3 mM, respectively, in mouse phrenic nerve-diaphragm<sup>[3]</sup>.

**In Vivo:** The toxic effect of MPTP can be completely abolished in vivo by treatment with a monoamine oxidase inhibitor and potentiated by an inhibitor of catechol-O-methyltransferase<sup>[1]</sup>. Allopurinol potentiated the MPTP (35 mg/kg)-induced decrease in the DOPAC+HVA/DA ratio and increase in striatal AA oxidation of the rat<sup>[2]</sup>. Gas1 expressions are significantly elevated in the majority of the reactive astrocytes of the brains with LPS or MPTP insults in animal models<sup>[4]</sup>.



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