



MPTP (hydrochloride)

Catalog No: tcsc1337

Available Sizes
Size: 10mg
Size: 50mg
Size: 100mg
Specifications
CAS No: 23007-85-4
Formula: C ₁₂ H ₁₆ CIN
Pathway: Others
Target: Others
Purity / Grade: >98%
Solubility: DMSO: 12 mg/mL (57.22 mM; Need ultrasonic and warming); H2O: ≥ 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_{50} (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^[3].

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^[1]. Allopurinol potentiated the MPTP (35 mg/kg)-induced decrease in the DOPAC+HVA/DA ratio and increase in striatal AA oxidation of the rat^[2]. Gas1 expressions are significantly elevated in the majority of the reactive astrocytes of the brains with LPS or MPTP insults in animal models^[4].

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