



LKT Laboratories, Inc.

Dimebon Dihydrochloride

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Product Information

Product ID D3349

CAS No. 97657-92-6

Chemical Name

Synonym Dimebon 2HCl, Latrepirdine, Dimebolin Hydrochloride

Formula $C_{21}H_{25}N_3 \cdot 2HCl$

Formula Wt. 392.37

Melting Point

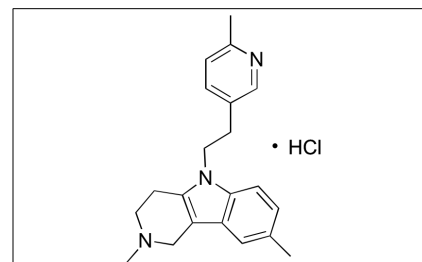
Purity $\geq 98\%$

Solubility H₂O: ≥ 10 mg/mL

Store Temp -20°C

Ship Temp Ambient

Description Dimebon is an activator of AMPK, a potentiator of AMPA, and an inhibitor of L-type voltage-gated Ca²⁺ channels, NMDA receptors, H1/2 histamine receptors, α -adrenergic receptors, and 5-HT_{2C}/5A/6 receptors. Dimebon displays neuroprotective and cognition enhancing effects in neurodegenerative diseases. Dimebon decreases neuronal excitability and glutamate release. In animal models of autotrophic lateral sclerosis (ALS), dimebon delays the onset of symptoms and increases the lifespan. In animal models of Alzheimer's disease, this compound regulates APP metabolism, decreasing levels of amyloid- β (A β). In other animal models, dimebon prevents A β -induced mitochondrial swelling in the brain. Dimebon also exhibits beneficial effects in animal models of Parkinson's disease.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
D3349	1 mg	\$86.00
D3349	5 mg	\$152.80
D3349	10 mg	\$233.40

References Coughlan KS, Mitchem MR, Hogg MC, et al. "Preconditioning" with latrepirdine, an adenosine 5'-monophosphate-activated protein kinase activator, delays amyotrophic lateral sclerosis progression in SOD1(G93A) mice. *Neurobiol Aging*. 2015 Feb;36(2):1140-50. PMID: 25443289.

Shevtsova EF, Vinogradova DV, Kireeva EG, et al. Dimebon attenuates the A β -induced mitochondrial permeabilization. *Curr Alzheimer Res*. 2014;11(5):422-9. PMID: 24801220.

Weisová P, Alvarez SP, Kilbride SM, et al. Latrepirdine is a potent activator of AMP-activated protein kinase and reduces neuronal excitability. *Transl Psychiatry*. 2013 Oct 22;3:e317. PMID: 24150226.

Steele JW, Gandy S. Latrepirdine (Dimebon®), a potential Alzheimer therapeutic, regulates autophagy and neuropathology in an Alzheimer mouse model. *Autophagy*. 2013 Apr;9(4):617-8. PMID: 23380933.

Wu J, Li Q, Bezprozvanny I. Evaluation of Dimebon in cellular model of Huntington's disease. *Mol Neurodegener*. 2008 Oct 21;3:15. PMID: 18939977.

Grigorev VV, Dranyi OA, Bachurin SO. Comparative study of action mechanisms of dimebon and memantine on AMPA- and NMDA-subtypes glutamate receptors in rat cerebral neurons. *Bull Exp Biol Med*. 2003 Nov;136(5):474-7. PMID: 14968164.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.