LKT Laboratories, Inc.

Doxepin Hydrochloride

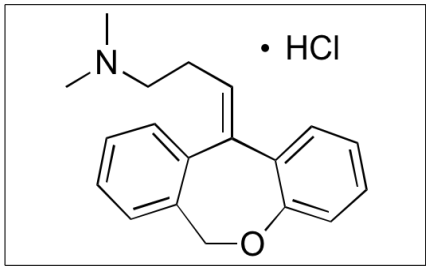
Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID D5994
CAS No. 1229-29-4
Chemical Name

Synonym

Formula $C_{19}H_{21}NO \cdot HCl$
Formula Wt. 315.84
Melting Point
Purity ≥98%
Solubility Soluble in water (100 mM), chloroform (1:2), alcohol (1:1), methanol, and DMSO



Bulk quanitites available upon request

Product ID	Size
D5994	1 g
D5994	5 g
D5994	25 g

Store Temp Ambient
Ship Temp Ambient

Description Doxepin hydrochloride is a tricyclic antidepressant that also exhibits anxiolytic, analgesic, anti-ulcerative, and hypnotic activities. This compound displays inhibitory activity at a wide range of receptor subtypes, including 5-HT1/2 receptors, muscarinic acetylcholine receptors (M1-5 mAChRs), α1-adrenergic receptors, and histamine (H1/2) receptors; additionally, doxepin hydrochloride competitively antagonizes the serotonin transporter (SERT) and the norepinephrine transporter (NET). Doxepin hydrochloride is most often prescribed as an orally bioavailable treatment for depression, anxiety, insomnia, or when topically applied, dermatological itch. In addition to its modulation of neurotransmitter levels, doxepin hydrochloride also inhibits the H+/K+ ATPase through K+ antagonism and intravesicular neutralization; like other antidepressants, this compound also regulates HPA axis signaling, decreasing stress-induced corticosterone release, potentially through an endocannabinoid-mediated signaling pathway. Doxepin also acts as a functional inhibitor of acid sphingomyelinase (FIASMA).

References

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