



LKT Laboratories, Inc.

Trifluoperazine Dihydrochloride

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

Product Information

Product ID T7033

CAS No. 440-17-5

Chemical Name 10-[3-(4-Methyl-1-piperazinyl)propyl]-2-(trifluoromethyl)phenothiazine dihydrochloride

Synonym Trifluoperazine dihydrochloride, Triftazin, Eskazinyl, Eskazine, Jatroneural, Modalina, Stelazine, Terfluzine

Formula C₂₁H₂₄F₃N₃S • 2HCl

Formula Wt. 480.43

Melting Point 242-243 °C

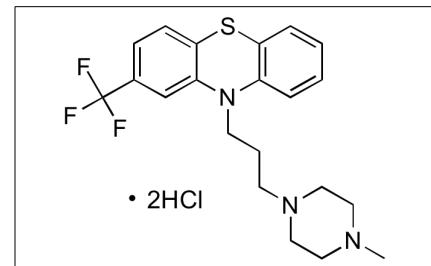
Purity ≥98%

Solubility Soluble in water (>280 mg/mL), ethanol (90 mg/mL)..

Store Temp 4°C

Ship Temp Ambient

Description Trifluoperazine is a phenothiazine antipsychotic that is clinically used to treat schizophrenia and anxiety. Trifluoperazine also exhibits anxiolytic, anti-parasitic, anticancer, and anesthetic activities. This compound inhibits α1-adrenergic receptors, calmodulin, and D1/2 receptors. In *Plasmodium*, trifluoperazine inhibits Ca²⁺-dependent protein kinase 4 (CDPK4). In lung adenocarcinoma cells, trifluoperazine downregulates expression of F-actin and Bcl-2, upregulates expression of Bax and phosphorylation of ERK and JNK, induces apoptosis, and inhibits cellular proliferation. Additionally, this compound inhibits Nav1.4/SCN4A and Nav1.7/SCN9A Na⁺ channels, causing sensory and motor blockade in vivo.



Bulk quantities available upon request

Product ID **Size**

T7033 5 g

T7033 10 g

T7033 25 g

References Cavagnino A, Rossi F, Rizzi M. The potent antiplasmodial calmodulin-antagonist trifluoperazine inhibits plasmodium falciparum calcium-dependent protein kinase 4. *Protein Pept Lett.* 2011 Dec;18(12):1273-9. PMID: 21787279.

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Yano T, Kassovska-Bratinova S, Teh JS, et al. Reduction of clofazimine by mycobacterial type 2 NADH:quinone oxidoreductase: a pathway for the generation of bactericidal levels of reactive oxygen species. *J Biol Chem.* 2011 Mar 25;286(12):10276-10287. PMID: 21193400.

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