



LKT Laboratories, Inc.

(+/-)-Taxifolin Hydrate

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Product Information

Product ID T0393

CAS No. 24198-97-8

Chemical Name

Synonym (+/-)-Dihydroquercetin

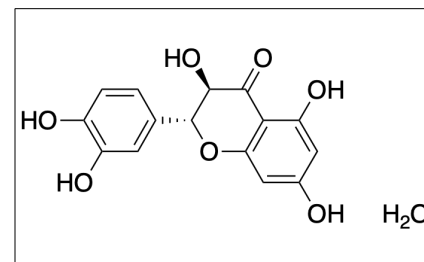
Formula $C_{15}H_{12}O_7 \cdot H_2O$

Formula Wt. 322.27

Melting Point 230-232 °C

Purity ≥95%

Solubility



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
T0393	10 mg	\$56.40
T0393	25 mg	\$89.70
T0393	100 mg	\$280.60

Store Temp Ambient

Ship Temp Ambient

Description Taxifolin is a catechol-type flavonoid that displays cardioprotective, neuroprotective, antioxidative, and anticancer chemotherapeutic activities. In animal models of diabetic cardiomyopathy, taxifolin inhibits myocyte apoptosis (through inhibition of caspase-3 and caspase-9 activation, release of cytochrome c, and increases in JAK/STAT3 activation), attenuating structural pathology and improving diastolic function. Taxifolin displays neuroprotective properties in models of Alzheimer's disease as it prevents aggregation of amyloid- β (A β) proteins by reacting with lysine residues. This compound also increases quinone reductase activity and decreases NADPH oxidase activity, activating the antioxidant response element (ARE). Additionally, taxifolin inhibits fatty acid synthesis and cell growth and induces apoptosis, inhibiting proliferation of cancer cells in vitro and in vivo.

References Sato M, Murakami K, Uno M, et al. Structure-activity relationship for (+)-taxifolin isolated from silymarin as an inhibitor of amyloid-beta aggregation. *Biosci Biotechnol Biochem*. 2013;77(5):1100-1103. PMID: 23649236.

Sun X, Chen RC, Yang ZH, et al. Taxifolin prevents diabetic cardiomyopathy in vivo and in vitro by inhibition of oxidative stress and cell apoptosis. *Food Chem Toxicol*. 2013 Nov 20. [Epub ahead of print]. PMID: 24269735

Sato M, Murakami K, Uno M, et al. Site-specific inhibitory mechanism for amyloid β 42 aggregation by catechol-type flavonoids targeting the Lys residues. *J Biol Chem*. 2013 Aug 9;288(32):23212-24. PMID: 23792961

Lee SB, Cha KH, Selenge D, et al. The chemopreventive effect of taxifolin is exerted through ARE-dependent gene regulation. *Biol Pharm Bull*. 2007 Jun;30(6):1074-9. PMID: 17541156

Brusselmans K, Vrolix R, Verhoeven G, et al. Induction of cancer cell apoptosis by flavonoids is associated with their ability to inhibit fatty acid synthase activity. *J Biol Chem*. 2005 Feb 18;280(7):5636-45. PMID: 15533929.

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