

Tricetin

Chemical Properties

CAS No. : 520-31-0

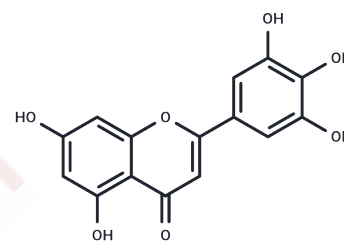
Formula: C₁₅H₁₀O₇

Molecular Weight: 302.24

Storage: Keep away from direct sunlight, Store under nitrogen

Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Tricetin is a flavonoid isolated from pomegranate. Tricetin is a potent competitive inhibitor of Keap1-Nrf2 protein-protein interaction (PPI) and protects Parkinson's disease patients from 6-OHDA-induced neurotoxicity by activating the Nrf2/HO-1 signaling pathway and blocking mitochondria-dependent apoptotic pathways. Tricetin inhibits migration and expression of the indicator protease progerin-1 (PS-1) in nasopharyngeal carcinoma through the Akt/GSK-1 β pathway. Tricetin inhibits endothelial inflammation induced by oxidized LDL mediated by Egr-1, and protects rat chondrocytes from IL-1 β -induced inflammation and apoptosis. Tricetin is an inhibitor of endothelial inflammation induced by oxidized LDL mediated by Egr-1 and protects against IL-1 β -induced inflammation and apoptosis.
Targets(IC50)	Apoptosis, Nrf2
In vitro	Tricetin (20, 40, and 80 μ M; 4 h) significantly improves 6-OHDA (200 μ M)-induced SH-SY5Y cells viability and suppresses mitochondria-mediated apoptosis.[1] Tricetin (80 μ M; 1, 2, and 4h) markedly decreased the expressions of p-JNK and p-p38.[1]

Solubility Information

Solubility	DMSO: 22.5 mg/mL (74.44 mM), Sonication is recommended. ($<$ 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3086 mL	16.5431 mL	33.0863 mL
5 mM	0.6617 mL	3.3086 mL	6.6173 mL
10 mM	0.3309 mL	1.6543 mL	3.3086 mL
50 mM	0.0662 mL	0.3309 mL	0.6617 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ren J, et al. Tricetin protects against 6-OHDA-induced neurotoxicity in Parkinson's disease model by activating Nrf2/HO-1 signaling pathway and preventing mitochondria-dependent apoptosis pathway. *Toxicol Appl Pharmacol.* 2019;378:114617.

Sun FF, et al. Tricetin Protects Rat Chondrocytes against IL-1 β -Induced Inflammation and Apoptosis. *Oxid Med Cell Longev.* 2019;2019:4695381.

Wu S, et al. Identification and Characterization of Two Regiospecific Tricetin UDP-Dependent Glycosyltransferases from Pomegranate (*Punica granatum L.*). *Plants (Basel).* 2022;11(6):810.

Chung TT, et al. Tricetin suppresses human oral cancer cell migration by reducing matrix metalloproteinase-9 expression through the mitogen-activated protein kinase signaling pathway. *Environ Toxicol.* 2017;32(11):2392-2399.

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