

Tagitinin C

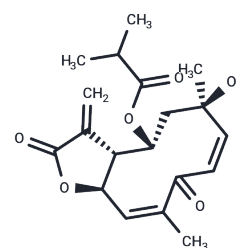
Chemical Properties

CAS No. : 59979-56-5

Formula: C₁₉H₂₄O₆

Molecular Weight: 348.39

Storage: Store at low temperature, Keep away from moisture,
Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Tagitinin C is a sesquiterpene compound derived from <i>Tithonia diversifolia</i> , an inducer of ferroptosis with anti-cancer activity. It induces ferroptosis through the PERK-Nrf2-HO-1 signaling pathway.
Targets(IC50)	Ferroptosis
In vitro	Tagitinin C can inhibit the proliferation of human glioblastoma U373, IC ₅₀ = 6.1±0.1 µg/mL. [1] Tagitinin C has cytotoxic activity against human hepatocellular carcinoma Hep-G2 cells with IC (50) = 2.0 ± 0.1 µg/mL. [2] Tagitinin C induces iron death through ER stress-mediated activation of the PERK-Nrf2-HO-1 signaling pathway. It can be used as a new inducer of iron death. [3]
In vivo	Tagitinin C (15 µg/ mouse/day) delayed tumorigenicity in Hep-G2 cell xenografts. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8703 mL	14.3517 mL	28.7035 mL
5 mM	0.5741 mL	2.8703 mL	5.7407 mL
10 mM	0.287 mL	1.4352 mL	2.8703 mL
50 mM	0.0574 mL	0.287 mL	0.5741 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

Lee MY, et al. Identification and anti-human glioblastoma activity of tagitinin C from *Tithonia diversifolia* methanolic extract. *J Agric Food Chem*. 2011 Mar 23;59(6):2347-55.

Liao MH, et al. Anti-human hepatoma Hep-G2 proliferative, apoptotic, and antimutagenic activity of tagitinin C from *Tithonia diversifolia* leaves. *J Nat Med*. 2013 Jan;67(1):98-106.

Wei R, et al. Tagitinin C induces ferroptosis through PERK-Nrf2-HO-1 signaling pathway in colorectal cancer cells. *Int J Biol Sci*. 2021 Jun 26;17(11):2703-2717.

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