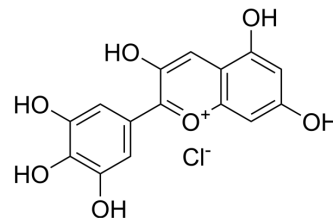


Delphinidin chloride

Cat. No.:	HY-N2409
CAS No.:	528-53-0
Molecular Formula:	C ₁₅ H ₁₁ ClO ₇
Molecular Weight:	338.7
Target:	Apoptosis; EGFR; JAK; STAT
Pathway:	Apoptosis; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Epigenetics; Stem Cell/Wnt
Storage:	4°C, sealed storage, away from moisture and light * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (184.53 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.9525 mL	14.7623 mL	29.5247 mL
		5 mM	0.5905 mL	2.9525 mL	5.9049 mL
		10 mM	0.2952 mL	1.4762 mL	2.9525 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (7.38 mM); Suspended solution; Need ultrasonic 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (6.14 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Delphinidin chloride is an anthocyanin isolated from berries and red wine. Delphinidin chloride exhibits endothelium-dependent vasodilation and anticancer activity. Delphinidin chloride also modulates JAK/STAT3 and MAPK signaling, thereby inducing apoptosis in HCT116 cells. Delphinidin chloride is also a potent inhibitor of EGFR (IC ₅₀ : 1.3 μM), shutting down downstream signaling cascades ^{[1][2][3][4]} .
In Vitro	The IC ₅₀ s of Delphinidin chloride against cancer cells LXFL529L and A431 are 33 μM and 18 μMs respectively ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [3]. Zhang Z, et, al. Delphinidin modulates JAK/STAT3 and MAPKinase signaling to induce apoptosis in HCT116 cells. Environ Toxicol. 2021 May 6.
- [4]. Meiers S, et al. The anthocyanidins cyanidin and delphinidin are potent inhibitors of the epidermal growth-factor receptor. J Agric Food Chem. 2001 Feb;49(2):958-62.
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Caution: Product has not been fully validated for medical applications. For research use only.

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