

Product Data Sheet

Irigenin

Cat. No.: HY-N2587 CAS No.: 548-76-5 Molecular Formula: $C_{18}H_{16}O_8$ Molecular Weight: 360.31

Target: Integrin; Apoptosis

Pathway: Cytoskeleton; Apoptosis

Storage: 4°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (277.54 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.7754 mL	13.8769 mL	27.7539 mL
	5 mM	0.5551 mL	2.7754 mL	5.5508 mL
	10 mM	0.2775 mL	1.3877 mL	2.7754 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: \geq 2.5 mg/mL (6.94 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Irigenin is a is a lead compound, and mediates its anti-metastatic effect by specifically and selectively blocking $\alpha 9\beta 1$ and $\alpha 4\beta 1$ integrins binding sites on C-C loop of Extra Domain A (EDA). Irigenin shows anti-cancer properties. It sensitizes TRAIL-induced apoptosis via enhancing pro-apoptotic molecules in gastric cancer cells ^[1] .
In Vitro	Irigenin specifically targets $\alpha 9\beta 1$ and $\alpha 4\beta 1$ integrin binding sites on Extra Domain A (EDA) comprising LEU46, PHE47, PRO48, GLU58, LEU59 and GLN60 in its C-C loop. Irigenin binds to the C-C loop of EDA, thereby blocking its interaction with integrins on the cell surface and thus abrogating subsequent Epithelial-Mesenchymal transition ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Amin A, et al. Irigenin, a novel lead from Western Himalayan chemiome inhibits Fibronectin-Extra Domain A induced metastasis in Lung cancer cells. Sci Rep. 2016 Nov 16;6:37151.

[2]. Xu Y, et al. Irigenin sensitizes TRAIL-induced apoptosis via enhancing pro-apoptotic molecules in gastric cancer cells. Biochem Biophys Res Commun. 2018 Feb 12;496(3):998-1005.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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