Glaucocalyxin A

Cat. No.: HY-N2112

CAS No.: 79498-31-0

Molecular Formula: $C_{20}H_{28}O_4$

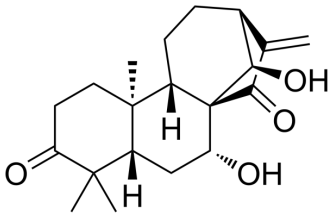
Molecular Weight: 332.43

Target: PI3K; Akt; Apoptosis

Pathway: PI3K/Akt/mTOR; Apoptosis

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (150.41 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0082 mL	15.0408 mL	30.0815 mL
	5 mM	0.6016 mL	3.0082 mL	6.0163 mL
	10 mM	0.3008 mL	1.5041 mL	3.0082 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: ≥ 2.5 mg/mL (7.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Glaucocalyxin A, an ent-kauranoid diterpene from Rabdosia japonica var., induces apoptosis in osteosarcoma by inhibiting nuclear translocation of Five-zinc finger Glis 1 (GLI1) via regulating PI3K/Akt signaling pathway. Glaucocalyxin A has antitumor effect[1].

IC_{50} & Target

PI3K

In Vitro

Glaucocalyxin A induces apoptosis by mitochondrial apoptotic pathway through several steps including increasing the Bax/Bcl-2 ratio, triggering the intracellular reactive oxygen species (ROS) generation, reducing mitochondrial membrane

potential (MMP), and inducing cleavage of caspase-9 and caspase-3[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Phytomedicine. 2022 Jun;100:154089.
- Int J Mol Sci. 2022, 23(1), 446.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Zhu J, et al. Glaucocalyxin A exerts anticancer effect on osteosarcoma by inhibiting GLI1 nucleartranslocation via regulating PI3K/Akt pathway. Cell Death Dis. 2018 Jun 13;9(6):708.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA