**Proteins** 

# **Rotundic acid**

Cat. No.: HY-N2217 20137-37-5 CAS No.: Molecular Formula: C<sub>30</sub>H<sub>48</sub>O<sub>5</sub> Molecular Weight: 488.7

Target: Akt; mTOR; p38 MAPK; Apoptosis

Pathway: PI3K/Akt/mTOR; MAPK/ERK Pathway; Apoptosis

Storage: 4°C, protect from light

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

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (204.62 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0462 mL	10.2312 mL	20.4625 mL
	5 mM	0.4092 mL	2.0462 mL	4.0925 mL
	10 mM	0.2046 mL	1.0231 mL	2.0462 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 (5.12 mM); Suspended solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.12 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.12 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Rotundic acid, a triterpenoid obtained from Ilex rotunda Thunb., induces DNA damage and cell apoptosis in hepatocellular carcinoma through AKT/mTOR and MAPK Pathways. Rotundic acid possesses anti-inflammatory and cardio-protective abilities <sup>[1]</sup> .		
IC <sub>50</sub> & Target	mTOR	p38 MAPK	

### **REFERENCES**

1]. Roy G, et al. Rotundic Acid In	nduces DNA Damage and Cell De	eath in Hepatocellular Carcinon	na Through AKT/mTOR and MAPK Pathwa	ys. Front Oncol. 2019 Jun 26;9:545
	Caution: Product has not b	een fully validated for medi	cal applications. For research use onl	y.
	Tel: 609-228-6898	Fax: 609-228-5909 er Park Dr, Suite Q, Monmout	E-mail: tech@MedChemExpress.com	m
			,	

Page 2 of 2 www.MedChemExpress.com