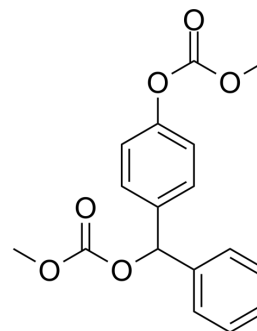


ACA-28

Cat. No.:	HY-147855		
CAS No.:	948044-25-5		
Molecular Formula:	C ₁₇ H ₁₆ O ₆		
Molecular Weight:	316.31		
Target:	ERK; Apoptosis		
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (316.15 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.1615 mL	15.8073 mL	31.6146 mL
	5 mM		0.6323 mL	3.1615 mL	6.3229 mL
	10 mM		0.3161 mL	1.5807 mL	3.1615 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (7.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (7.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (7.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ACA-28 (compound 2a) is a potent ERK MAPK signaling modulator. ACA-28 selectively inhibits cancer cell growth by inducing apoptosis with ERK hyperactivation. ACA-28 inhibits cell growth of melanoma cells (SK-MEL-28) and normal melanocytes (NHEM), with IC₅₀ values of 5.3 and 10.1 μM, respectively^[1].

REFERENCES

[1]. Satoh R, et al. Discovery of new benzhydrol biscarbonate esters as potent and selective apoptosis inducers of human melanomas bearing the activated ERK pathway: SAR studies on an ERK MAPK signaling modulator, ACA-28. *Bioorg Chem.* 2020 Oct;103:104137.

Caution: Product has not been fully validated for medical applications. For research use only.

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