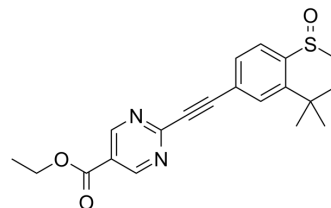


WYC-209

Cat. No.:	HY-124136												
CAS No.:	2131803-90-0												
Molecular Formula:	C ₂₀ H ₂₀ N ₂ O ₃ S												
Molecular Weight:	368.45												
Target:	RAR/RXR; Apoptosis; Autophagy												
Pathway:	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Apoptosis; Autophagy												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>2 years</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 year</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	2 years		-20°C	1 year
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	2 years											
	-20°C	1 year											



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (226.16 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.7141 mL	13.5704 mL	27.1407 mL
	5 mM	0.5428 mL	2.7141 mL	5.4281 mL
	10 mM	0.2714 mL	1.3570 mL	2.7141 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: ≥ 2.08 mg/mL (5.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (5.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

WYC-209, a synthetic retinoid, is a retinoic acid receptor (RAR) agonist. WYC-209 induces apoptosis primarily via the caspase 3 pathway (IC₅₀=0.19 μM for in malignant murine melanoma TRCs), and has long-term effects with little toxicity^[1].

IC₅₀ & Target

Retinoic acid receptor^[1]

In Vitro

WYC-209 (10 μM; 24 hours) is able to inhibit and block growth of TRCs of human tumor cells in culture with a long-lasting effect^[1].

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

	Apoptosis Analysis ^[1]	
	Cell Line:	A2780, A549, MCF-7, MDA-MB-435s, A375 cells
	Concentration:	10 μ M
	Incubation Time:	24 hours
	Result:	TRCs failed to resume growth 5 days after the drug washout.
In Vivo	WYC-209 (0.022-0.22 mg/kg; i.v.; once every two days for 25 days) inhibits tumor metastasis in C57BL/6 mice bearing lung metastases ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female immune-competent C57BL/6 mice ^[1]
	Dosage:	0.022, 0.22 mg/kg
	Administration:	Intravenous injection; once every two days for 25 days
	Result:	Four out of eight mice formed lung metastases at dose of 0.022 mg /kg, only one out of eight mice formed lung metastases at dose of 0.22 mg/kg.

REFERENCES

[1]. Chen J, et al. Inhibition of cancer stem cell like cells by a synthetic retinoid. Nat Commun. 2018 Apr 11;9(1):1406.

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

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