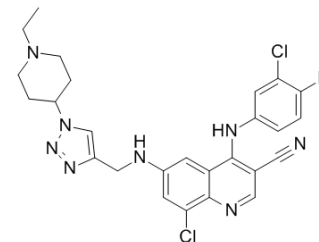


Cot inhibitor-2

Cat. No.:	HY-32018		
CAS No.:	915363-56-3		
Molecular Formula:	C ₂₆ H ₂₅ Cl ₂ FN ₈		
Molecular Weight:	539.43		
Target:	MAP3K		
Pathway:	MAPK/ERK Pathway		
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 (185.38 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass		1 mg	5 mg	10 mg
	Concentration				
	1 mM		1.8538 mL	9.2690 mL	18.5381 mL
	5 mM		0.3708 mL	1.8538 mL	3.7076 mL
	10 mM		0.1854 mL	0.9269 mL	1.8538 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: ≥ 3 mg/mL (5.56 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 3 mg/mL (5.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cot inhibitor-2 is a potent, selective and orally active cot (Tpl2/MAP3K8) inhibitor with an IC₅₀ of 1.6 nM. Cot inhibitor-2 inhibits TNF-α production in LPS-stimulated human whole blood with an IC₅₀ of 0.3 μM^[1].

IC₅₀ & Target

COT/Tpl2^[1]

In Vivo

Cot inhibitor-2 (compound 34) is orally administered in rats with 100 mg/kg dosing and showed a C_{max} of 517 ng/mL (0.89 μM) and AUC of 4841 ng·h/mL. Cot inhibitor-2 is tested in the LPS-induced TNF-α production model in female Sprague-Dawley rats. With a 25 mg/kg po dose, Cot inhibitor-2 inhibits LPS-induced TNF-α production by 83%^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Harvard Medical School LINCS LIBRARY

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REFERENCES

[1]. Junjun Wu, et al. Selective inhibitors of tumor progression loci-2 (Tpl2) kinase with potent inhibition of TNF-alpha production in human whole blood. Bioorg Med Chem Lett. 2009 Jul 1;19(13):3485-8.

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

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