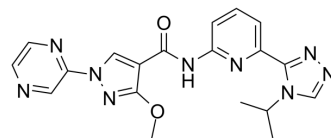


ASK1-IN-1

Cat. No.:	HY-133554		
CAS No.:	2411382-24-4		
Molecular Formula:	C ₁₉ H ₁₉ N ₉ O ₂		
Molecular Weight:	405.41		
Target:	p38 MAPK		
Pathway:	MAPK/ERK Pathway		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMF : 4 mg/mL (9.87 mM; Need ultrasonic)
 DMSO : < 1 mg/mL (insoluble or slightly soluble)
 Ethanol : < 1 mg/mL (ultrasonic) (insoluble)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.4666 mL	12.3332 mL	24.6664 mL
5 mM	0.4933 mL	2.4666 mL	4.9333 mL
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

ASK1-IN-1 is a CNS-penetrant ASK1 (apoptosis signal-regulating kinase 1) inhibitor, with good potency (cell IC₅₀=138 nM; Biochemical IC₅₀=21 nM)^[1].

IC₅₀ & Target

IC₅₀: 138/21 nM (ASK1 in cell and Biochemical assays, respectively)^[1]

In Vitro

ASK1-IN-1 (compound 21) has superior CYP inhibition profile and it is also inactive in a hERG assay. ASK1-IN-1 is selected for a kinase selectivity profile against a panel of 468 kinases and it is found to be moderately selective^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

ASK1-IN-1 (10 mg/kg; p.o.) covers the cellular IC₅₀/IC₇₀/IC₉₀ at trough in the brain for 12 hours of 50/115/435 mg/kg respectively. ASK1-IN-1 has good biochemical and cellular potency, low clearance and good brain penetration in rodents^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Xin Z, et al. Discovery of CNS-Penetrant Apoptosis Signal-Regulating Kinase 1 (ASK1) Inhibitors. ACS Med Chem Lett. 2020;11(4):485-490. Published 2020 Feb 12.

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

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