MAPK-IN-1

Cat. No.: HY-146195

CAS No.: 2470587-69-8

Molecular Formula: $C_{19}H_{18}O_4$

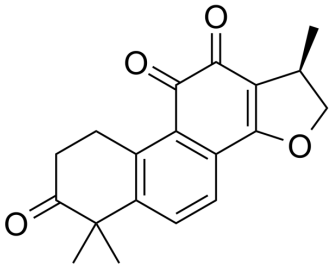
Molecular Weight: 310.34

Target: p38 MAPK; JNK; ERK; Cholinesterase (ChE); Toll-like Receptor (TLR)

Pathway: MAPK/ERK Pathway; Stem Cell/Wnt; Neuronal Signaling; Immunology/Inflammation

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 (322.23 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.2223 mL	16.1114 mL	32.2227 mL
5 mM	0.6445 mL	3.2223 mL	6.4445 mL
10 mM	0.3222 mL	1.6111 mL	3.2223 mL

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

BIOLOGICAL ACTIVITY

Description

MAPK-IN-1 (Compound 2) is a MAPK signaling pathway inhibitor. MAPK-IN-1 exhibits AChE inhibitory activity with an IC_{50} of 23.84 μM. MAPK-IN-1 shows anti-neuroinflammatory and neuroprotective activity and can be used for Alzheimer's disease research[1].

IC_{50} & Target

TLR4

In Vitro

MAPK-IN-1 (Compound 2) inhibits NO, IL-1β, IL-6, and TNF-α release in BV-2 cells with IC_{50} values of 0.49 ± 0.17, 1.34 ± 0.21, 9.17 ± 0.17 and 8.17 ± 0.23 μM, respectively[1].

MAPK-IN-1 downregulates LPS-induced phosphorylation of JNK, ERK, and p38 in MAPK signaling pathway[1].

MAPK-IN-1 inhibits expressions of iNOS, COX-2, and TLR4 in LPS-induced BV-2 cells[1].

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

REFERENCES

[1]. Wu JS, et al. The oxygenated products of cryptotanshinone by biotransformation with Cunninghamella elegans exerting anti-neuroinflammatory effects by inhibiting TLR 4-mediated MAPK signaling pathway. Bioorg Chem. 2020 Nov;104:104246.

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