Data Sheet (Cat.No.T211713)

TargetMol

RIPK1-IN-33

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	RIPK1-IN-33 is an orally active RIPK1 inhibitor with excellent blood-brain barrier permeability, exhibiting an IC50 of 0.115 μM. It demonstrates significant anti-ferroptosis activity, radical scavenging capability (IC50= 123.3 μM), and anti-lipid peroxidation effects (IC50= 9.72 μM). In transient middle cerebral artery occlusion (tMCAO) models, it significantly reduces cerebral infarct volume and improves neurological scores. RIPK1-IN-33 is suitable for ischemic stroke research.
Targets(IC50)	Ferroptosis,RIP kinase
In vitro	RIPK1-IN-33 (Compound 23a) demonstrates significant free radical scavenging DAPH activity with an IC 50 value of 123.3 μM and an antioxidant MDA effect with an IC 50 of 9.72 μM over a period of 30-60 minutes. Additionally, when administered at concentrations ranging from 0.0076 to 50 μM for 17 hours, RIPK1-IN-33 reduces PTGS2 mRNA expression levels in a dose-dependent manner in HT-1080 cells, exhibiting an IC 50 of 0.156 μM.
In vivo	RIPK1-IN-33 (Compound 23a), administered intravenously at a dose of 33 mg/kg (68.8 μmol/kg) twice over 24 hours, provides protective effects in a rat model of cerebral ischemia-reperfusion injury. Furthermore, administering RIPK1-IN-33 at a dosage of 100-200 mg/kg intravenously, either as a single dose or daily for seven consecutive days, resulted in no mortality or serious adverse events in the same rat model.

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