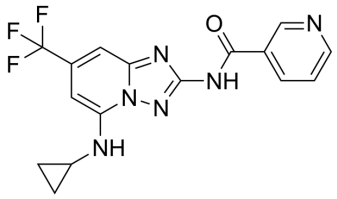
MSC 2032964A

Cat. No.:	HY-110262
CAS No.:	1124381-43-6
Molecular Formula:	$C_{16}H_{13}F_3N_6O$
Molecular Weight:	362.31
Target:	p38 MAPK
Pathway:	MAPK/ERK Pathway
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MSC 2032964A is an orally active, selective inhibitor for apoptosis signal-regulating kinase 1(ASK1) with IC_{50} of 96 nM. MSC 2032964A preserves the visual responses in EAE mice model and exhibits potency in ameliorating the neuroinflammation[1].

In Vitro

MSC 2032964A (10 μM) reveals a good metabolic stability with microsomal clearance <4 ml/min/mg, and a good apparent permeability[1].

MSC 2032964A (10 μM) inhibits Lipopolysaccharide (LPS, HY-D1056)-induced ASK1 and p38 phosphorylation in mouse astrocytes[1].

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

Western Blot Analysis[1]

Cell Line:	mouse astrocytes
Concentration:	10 μM
Incubation Time:	90 min
Result:	Inhibited phosphorylation of ASK1 and p38.

In Vivo

MSC 2032964A (5 mg/kg, p.o.) exhibits an oral bioavailability of 82%, a clearance of 1.1 L/kg/ h, a half-life of 5.2 h and a volume of distribution V_{ss} of 1.0 L/kg in SPrague Dawley rats[1].

MSC 2032964A (30 mg/kg, p.o., once daily for 40 days) attenuates neurological symptoms in both spinal cord and optic nerve lesions, and thus ameliorates the MOG (35-55) (HY-P1240)-induced autoimmune encephalomyelitis in C57BL/6J mice model [1].

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

Animal Model:	MOG (35-55)-induced autoimmune encephalomyelitis in C57BL/6J mice[1]
Dosage:	30 mg/kg
Administration:	p.o., once daily for 40 days
Result:	Reduced demyelination in optic nerve, decreased astrocyte and microglia activation in spinal cord.

REFERENCES

[1]. Guo X, et al., Regulation of the severity of neuroinflammation and demyelination by TLR-ASK1-p38 pathway. EMBO Mol Med. 2010 Dec;2(12):504-15.

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