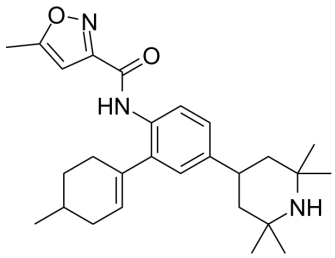
CSF1R-IN-23

Cat. No.:	HY-158148
CAS No.:	2935480-17-2
Molecular Formula:	$C_{27}H_{37}N_3O_2$
Molecular Weight:	435.6
Target:	c-Fms
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

CSF1R-IN-23 (Compound 7dri) is a selective inhibitor for colony-stimulating factor-1 receptor (CSF1R), with IC_{50} of 36.1 nM. CSF1R-IN-23 serves as antineuroinflammatory agent in mouse model. CSF1R-IN-23 is blood brain barrier (BBB) permeable[1].

In Vitro

CSF1R-IN-23 (0-10 μM, 30 min) inhibits autophosphorylation of CSF1R in cells RAW264.7 and microglial cells EOC20, without significant cytotoxicity[1].

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

Western Blot Analysis[1]

Cell Line:	EOC20 and RAW264.7
Concentration:	0-10 μM
Incubation Time:	30 min
Result:	Inhibited phosphorylation of CSF1R.

In Vivo

CSF1R-IN-23 (0.5 mg/kg, i.p. every two days for 4 doses) ameliorates the Lipopolysaccharide (HY-D1056)-induced neuroinflammation in C57BL/6J mice model[1].

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Animal Model:	LPS-induced neuroinflammation in C57BL/6J mice model[1]
Dosage:	0.5 mg/kg
Administration:	i.p., every two days for 4 doses
Result:	Eliminated the 76% microglias in hippocampus, cortex, and thalamus.

REFERENCES

[1]. Baek J, et al., Targeting the CSF-1/CSF-1R Axis: Exploring the Potential of CSF1R Inhibitors in Neurodegenerative Diseases. J Med Chem. 2024 Apr 11;67(7):5699-5720.

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

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