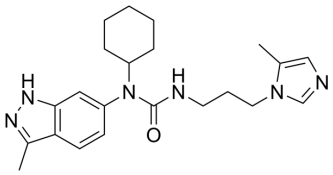
Glutaminyl Cyclase Inhibitor 5

Cat. No.:	HY-152031
Molecular Formula:	$C_{22}H_{30}N_6O$
Molecular Weight:	394.51
Target:	Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Glutaminyl Cyclase Inhibitor 5 (Compound 71) is a potent and selective human glutaminyl cyclase (hQC) inhibitor with an IC_{50} of 3.2 nM[1].
IC_{50} & Target	IC50: 3.2 nM (hQC), 34.2 nM (mQC), 106.1 nM (isoQC)[1]
In Vitro	Glutaminyl Cyclase Inhibitor 5 (Compound 71) does not show significant hERG inhibition (47.6% inhibition at 10 μM)[1]. Glutaminyl Cyclase Inhibitor 5 exhibits reasonable permeability with less than a cutoff value of 6.0 (-log P_e) and is likely to be BBB permeable[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Glutaminyl Cyclase Inhibitor 5 (Compound 71) (10 mM, 5 μL; ICV; once) suppresses the formation of pE-Aβ_{3-40} by 25% in acute Alzheimer's disease mouse model[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	ICR mice (male, six weeks old), acute Alzheimer's disease model[1]
Dosage:	10 mM, 5 μL
Administration:	Intracerebroventricular injection, once
Result:	Suppressed the formation of pE-Aβ_{3-40} by 25.0%.

REFERENCES

[1]. Van Manh N, et al. Discovery of potent indazole-based human glutaminyl cyclase (QC) inhibitors as Anti-Alzheimer's disease agents. Eur J Med Chem. 2022 Dec 15;244:114837.

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

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