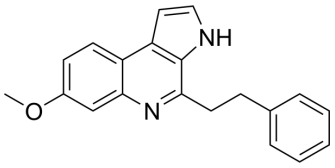
Glutamate-5-kinase-IN-1

Cat. No.:	HY-144381
Molecular Formula:	$C_{20}H_{18}N_2O$
Molecular Weight:	302.37
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Glutamate-5-kinase-IN-1 (compound 50) is a potent glutamate-5-kinase (G5K) inhibitor with an MIC (minimum inhibitory concentration) of 4.1 μM. Glutamate-5-kinase-IN-1 shows G5K inhibition by alters the ATP binding site architecture for enzyme recognition. Glutamate-5-kinase-IN-1 has the potential for the research of anti-TB agents[1].
IC_{50} & Target	G5K[1]
In Vitro	Glutamate-5-kinase-IN-1 (compound 50) (40 μM) inhibits G5K activity with an $I_{0.5}$ of 22.1 μM at 10 mM concentration of L-Glu and ATP[1]. Glutamate-5-kinase-IN-1 (5, 10, 20 μM) shows no relevant cytotoxicity in HepG2 cells[1]. Glutamate-5-kinase-IN-1 (120 μM) causes a substantial increase in the Km^{app} for ATP at constant concentrations of L-Glu (150 mM, 300 mM and 600 mM) and ATP (10 mM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Panciera M, et al. Discovery of 3H-pyrrolo[2,3-c]quinolines with activity against Mycobacterium tuberculosis by allosteric inhibition of the glutamate-5-kinase enzyme. Eur J Med Chem. 2022 Mar 15;232:114206.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA