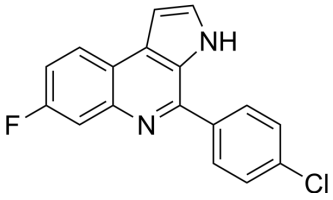
Glutamate-5-kinase-IN-2

Cat. No.:	HY-144382
Molecular Formula:	$C_{17}H_{10}ClFN_2$
Molecular Weight:	296.73
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-2 (compound 54) is a potent glutamate-5-kinase (G5K) inhibitor with an MIC (minimum inhibitory concentration) of 4.2 μM. Glutamate-5-kinase-IN-2 shows G5K inhibition by promotes conformational changes at the L-glutamate binding site. Glutamate-5-kinase-IN-2 has the potential for the research of anti-TB agents[1].
IC_{50} & Target	G5K[1]
In Vitro	Glutamate-5-kinase-IN-2 (compound 54) (40 μM) inhibits G5K activity with an $I_{0.5}$ of 33 μM at 10 mM concentration of L-Glu and ATP[1]. Glutamate-5-kinase-IN-2 (5, 10, 20 μM) shows no relevant cytotoxicity in HepG2 cells[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.

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