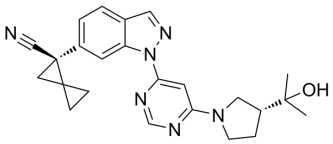
(R,R)-LRRK2-IN-7

Cat. No.:	HY-152107A
CAS No.:	2307277-92-3
Molecular Formula:	$C_{24}H_{26}N_6O$
Molecular Weight:	414.5
Target:	LRRK2
Pathway:	Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(R,R)-LRRK2-IN-7 is the isomer of LRRK2-IN-7 (HY-152107). LRRK2-IN-7 is a potent, selective, and CNS-penetrant LRRK2 kinase inhibitor with an IC50 of 0.9 nM. LRRK2-IN-7 shows >1000-fold selectivity over other kinases, ion channels, and CYP enzymes.
IC_{50} & Target	IC50: 0.9 nM (LRRK2 Kinase)[1]
In Vitro	LRRK2-IN-7 (compound 25) is both a mouse breast cancer resistance protein (BCRP) substrate (mouse/human BCRP) and a potent human BCRP inhibitor (BCRP IC_{50} = 0.12 μM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In a 7 day rat dose limiting toxicity study, LRRK2-IN-7 (compound 25) is tolerated with no significant histopathology findings up to 100 mg/kg once a day (AUC_{tot} = 330 μM·h)[1]. In an acute (2 h) rat PK/PD study, LRRK2-IN-7 (compound 25) demonstrates a dose-dependent decrease in LRRK2 pS935 in rat brain striatum with an EC_{50} = 0.18 nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. David A Candito, et al. Discovery and Optimization of Potent, Selective, and Brain-Penetrant 1-Heteroaryl-1 H-Indazole LRRK2 Kinase Inhibitors for the Treatment of Parkinson's Disease. J Med Chem. 2022 Dec 22;65(24):16801-16817.

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