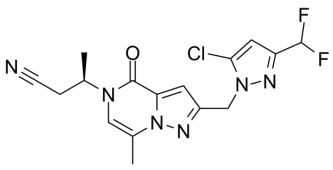
TP-050

Cat. No.:	HY-148250
Molecular Formula:	$C_{16}H_{15}ClF_2N_6O$
Molecular Weight:	380.78
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TP-050 is a potent, orally active and selective NMDAR agonist with an EC_{50} value of 0.51 μM and 9.6 μM for GluN2A and GluN2D, respecticely. TP-050 can cross the blood-brain barrier (BBB). TP-050 induces hippocampal long-term (LPT) potentiation enhancemen and enhances neuronal signal transmission[1].
IC_{50} & Target	EC50: 0.51 μM (GluN2A) and 9.6 μM (GluN2D)[1]
In Vivo	TP-050 (10 mg/kg; p.o.) induces neuroplastic enhancement in Sprague-Dawley rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats[1]
Dosage:	10 mg/kg
Administration:	Oral administration
Result:	Induced LTP enhancement 24 h after oral administration of 10 mg/kg.

REFERENCES

[1]. Sakurai F, et, al. Discovery of Pyrazolo[1,5-a]pyrazin-4-ones as Potent and Brain Penetrant GluN2A-Selective Positive Allosteric Modulators Reducing AMPA Receptor Binding Activity. Bioorg Med Chem. 2022 Feb 15;56:116576.

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

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