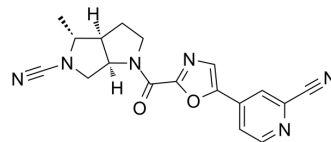


MTX115325

Cat. No.:	HY-160019		
CAS No.:	2750895-97-5		
Molecular Formula:	C ₁₈ H ₁₆ N ₆ O ₂		
Molecular Weight:	348.36		
Target:	Deubiquitinase; Mitophagy		
Pathway:	Cell Cycle/DNA Damage; Autophagy		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (717.65 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.8706 mL	14.3530 mL	28.7059 mL
	5 mM	0.5741 mL	2.8706 mL	5.7412 mL
	10 mM	0.2871 mL	1.4353 mL	2.8706 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MTX115325 (Example 1) is an orally active, brain-penetrating USP30 inhibitor (IC₅₀=12 nM) with neuroprotective activity. MTX115325 increases ubiquitination (EC₅₀=32 nM) of the mitochondrial outer membrane protein TOM20 (a USP30 substrate), increasing mitophagy. MTX115325 prevents dopaminergic neuron loss and preserves striatal dopamine^[1].

IC₅₀ & Target

IC₅₀: 12 nM (USP30)
 EC₅₀: 32 nM (TOM20, the outer mitochondrial membrane protein)^[1]

REFERENCES

[1]. Fang TZ et al. Knockout or inhibition of USP30 protects dopaminergic neurons in a Parkinson's disease mouse model. Nat Commun. 2023 Nov 13;14(1):7295.

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

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