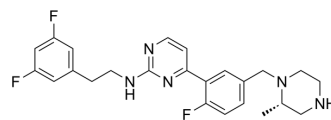


T0467

Cat. No.:	HY-139308												
CAS No.:	859518-94-8												
Molecular Formula:	C ₂₄ H ₂₆ F ₃ N ₅												
Molecular Weight:	441.49												
Target:	Mitochondrial Metabolism; PINK1/Parkin												
Pathway:	Metabolic Enzyme/Protease; Autophagy; Neuronal Signaling												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 33.33 mg/mL (75.49 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.2651 mL	11.3253 mL	22.6506 mL
		5 mM	0.4530 mL	2.2651 mL	4.5301 mL
10 mM		0.2265 mL	1.1325 mL	2.2651 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.66 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	T0467 activates parkin mitochondrial translocation in a PINK1-dependent manner in vitro. T0467 do not induce mitochondrial accumulation of PINK1 in dopaminergic neurons. T0467 is a potential compound for PINK1-Parkin signaling activation, and can be used for parkinson's disease and related disorders research ^[1] .
In Vitro	<p>T0467 (2.5-20 μM; 3 hours) stimulates the mitochondrial translocation of GFP-Parkin over 12 μM in HeLa/GFP-Parkin cells^[1]. When HeLa/GFP-Parkin cells are treated with 20 μM T0467 for 3 h, GFP-Parkin is translocated to the mitochondria in approximately 21% of cells^[1].</p> <p>T0467 does not show obvious toxicity in Drosophila at concentrations <50 μM. All cpds examined mitigated the PINK1 inactivation-mediated larval locomotion defects and mitochondrial morphological defects and reduced ATP production. T0467 and KTP improved the mitochondrial Ca²⁺ response in Drosophila larval muscles^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Research Square Preprint. 2023 Dec 27

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REFERENCES

[1]. Kahori Shiba-Fukushima, et al. A Cell-Based High-Throughput Screening Identified Two Compounds that Enhance PINK1-Parkin Signaling. *iScience*. 2020 May 22;23(5):101048.

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

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