

Elamipretide triacetate

Cat. No.:	HY-P0125B
CAS No.:	1849610-71-4
Molecular Formula:	C ₃₈ H ₆₁ N ₉ O ₁₁
Molecular Weight:	819.94
Sequence:	{d-Arg}-{Dmt}-Lys-Phe-NH ₂
Sequence Shortening:	{d-Arg}-{Dmt}-KF-NH ₂
Target:	Mitochondrial Metabolism
Pathway:	Metabolic Enzyme/Protease
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	Elamipretide triacetate (MTP-131 triacetate; RX-31 triacetate; SS-31 triacetate) is Elamipretide triacetate form of Elamipretide (HY-P0125). Elamipretide triacetate is a mitochondria-targeting peptide, which ameliorates myocardial infarction, improves the renal function and protects neurons from inflammatory and oxidative stress injury ^{[1][2]} .								
IC₅₀ & Target	Cardiolipin peroxidase ^[1]								
In Vivo	<p>Elamipretide triacetate (5 mg/kg, i.p., once daily for 3 days) exhibits neuroprotective effects, protects the hippocampus from mitochondrial dysfunction, and attenuates the oxidative stress and inflammatory response in Lipopolysaccharide (HY-D1056)-induced cognitive impairment in C57BL/6 mice model^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>LPS-induced cognitive impairment in C57BL/6 mice model^[1]</td> </tr> <tr> <td>Dosage:</td> <td>5 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p., once daily for 3 days</td> </tr> <tr> <td>Result:</td> <td>Maintained the mitochondrial function, ROS and MDA levels, and SOD activity. Inhibited neural cell apoptosis in hippocampus, enhanced the hippocampal BDNF pathway and synaptic structural complexity.</td> </tr> </table>	Animal Model:	LPS-induced cognitive impairment in C57BL/6 mice model ^[1]	Dosage:	5 mg/kg	Administration:	i.p., once daily for 3 days	Result:	Maintained the mitochondrial function, ROS and MDA levels, and SOD activity. Inhibited neural cell apoptosis in hippocampus, enhanced the hippocampal BDNF pathway and synaptic structural complexity.
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CUSTOMER VALIDATION

- Sci Adv. 2022 Apr 8;8(14):eabl4370.
- Cell Commun Signal. 2024 Jan 10;22(1):26.
- JCI Insight. 2021 Dec 7;e152102.

- Biomed Pharmacother. 2024 Jan 9;171:116110.
- Hum Mol Genet. 2019 Apr 1;28(7):1100-1116.

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REFERENCES

[1]. Zhao W, et al., Elamipretide (SS-31) improves mitochondrial dysfunction, synaptic and memory impairment induced by lipopolysaccharide in mice. J Neuroinflammation. 2019 Nov 20;16(1):230.

[2]. Sabbah HN, et al., Chronic Therapy With Elamipretide (MTP-131), a Novel Mitochondria-Targeting Peptide, Improves Left Ventricular and Mitochondrial Function in Dogs With Advanced Heart Failure. Circ Heart Fail. 2016 Feb;9(2):e002206.

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

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