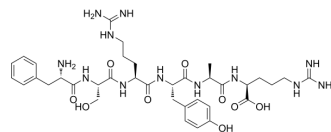


Alirinetide

Cat. No.:	HY-107130
CAS No.:	725715-18-4
Molecular Formula:	C ₃₆ H ₅₄ N ₁₂ O ₉
Molecular Weight:	798.89
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture and light Powder -80°C 2 years -20°C 1 year

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



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (125.17 mM; Need ultrasonic)
DMSO : 100 mg/mL (125.17 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent \ Mass		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM	1.2517 mL	6.2587 mL	12.5174 mL	
	5 mM	0.2503 mL	1.2517 mL	2.5035 mL	
	10 mM	0.1252 mL	0.6259 mL	1.2517 mL	

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

BIOLOGICAL ACTIVITY

Description

Alirinetide (GM604) is an oligopeptide containing 6 amino acids. Alirinetide can cross the blood-brain barrier and can be used for the research of multiple neurodegenerative diseases^[1].

In Vitro

Alirinetide (GM604) (0.1-10 mg/mL; 24 h) prevents SH-SY5Y cell death^[1].
Alirinetide (48 h) predominantly represses Parkinson's disease-associated genes in SH-SY5Y cells, these genes were largely associated with the mitochondrial protein complex and respiratory chain^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Viability Assay^[1]

Cell Line:	SH-SY5Y cells
Concentration:	0.1, 1 or 10 mg/mL

	Incubation Time:	24 h
	Result:	Led to dose-dependent rescue of cell survival, with complete recovery of cell viability at the highest dose (10 mg/mL).
In Vivo	<p>Alirinotide (GM604) (0-20 mg/kg; i.v.; twice daily for 5 days) improves behavioral, biochemical, and histological features in the 6-OHDA mouse model^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	C57BL/6 mice, 6-hydroxydopamine (6-OHDA) mouse model ^[1]
	Dosage:	0, 1, 5, 10 or 20 mg/kg
	Administration:	Intravenous injection, twice daily for 5 days
	Result:	Almost completely abrogated 6-OHDA effects at the highest dose, leading to improved motor performance, increased numbers of TH-positive neurons in the substantia nigra, and increased brain levels of dopamine, 3,4-Dihydroxyphenylacetic acid (DOPAC) and homovanillic acid (HVA).

REFERENCES

[1]. Swindell W R, et al. GM604 for Parkinson's Disease treatment: Pre-clinical findings and results from a pilot placebo-controlled trial. F1000Research, 2017, 6.

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

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