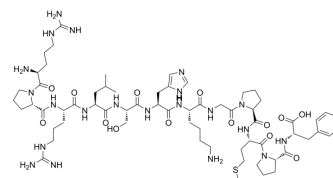


Apelin-12

Cat. No.:	HY-P2537
CAS No.:	229961-08-4
Molecular Formula:	C ₆₄ H ₁₀₃ N ₂₁ O ₁₄ S
Molecular Weight:	1422.7
Sequence Shortening:	RPRLSHKGPMFP
Target:	HIV; Apelin Receptor (APJ)
Pathway:	Anti-infection; GPCR/G Protein
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)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (70.29 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		0.7029 mL	3.5144 mL	7.0289 mL
	5 mM		0.1406 mL	0.7029 mL	1.4058 mL
	10 mM		0.0703 mL	0.3514 mL	0.7029 mL

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

BIOLOGICAL ACTIVITY

Description	Apelin-12 is one of the most potent C-terminal fragments of the polypeptide that possesses a high affinity to orphan receptor APJ receptor. Apelin-12 is involved in the regulation of body fluid homeostasis and in the central control of feeding. Apelin-12 blocks HIV-1 entry through APJ receptor. Apelin-12 exerts neuroprotective effect ^{[1][2][3]} .
IC ₅₀ & Target	HIV-1
In Vitro	Apelin-12 (A12) exerts neuroprotective effect against ischemia-reperfusion injury by inhibiting JNK and p38 MAPK signaling pathway in mouse ^[1] . Administration of exogenous A12 reduces arterial blood pressure in anesthetized rats due to activation of endothelial nitric oxide synthase and exerts a positive inotropic action in failing myocardium of rodents ^[2] . Apelin-12 stimulates acid secretion through an increase of histamine release in rat stomachs ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Pisarenko OI, et al. Effects of structural analogues of apelin-12 in acute myocardial infarction in rats. J Pharmacol Pharmacother. 2013;4(3):198-203.
- [2]. Pisarenko OI, et al. Apelin-12 and its structural analog enhance antioxidant defense in experimental myocardial ischemia and reperfusion. Mol Cell Biochem. 2014;391(1-2):241-250.
- [3]. Liu DR, et al. Apelin-12 exerts neuroprotective effect against ischemia-reperfusion injury by inhibiting JNK and P38MAPK signaling pathway in mouse. Eur Rev Med Pharmacol Sci. 2018;22(12):3888-3895. Liu DR, et al. Apelin-12 exerts neuroprotective effect against ischemia-reperfusion injury by inhibiting JNK and P38MAPK signaling pathway in mouse. Eur Rev Med Pharmacol Sci. 2018;22(12):3888-3895.
- [4]. Ohno S, et al. Apelin-12 stimulates acid secretion through an increase of histamine release in rat stomachs. Regul Pept. 2012;174(1-3):71-78.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA