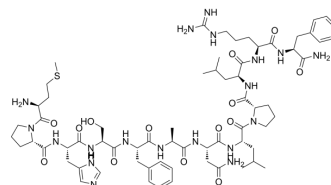


RFRP-1(human)

Cat. No.:	HY-P1428
CAS No.:	311309-25-8
Molecular Formula:	C ₆₇ H ₁₀₁ N ₁₉ O ₁₄ S
Molecular Weight:	1428.7
Sequence Shortening:	MPHSFANLPLRF-NH2
Target:	Neuropeptide Y Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
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	H ₂ O : 100 mg/mL (69.99 mM); Need ultrasonic)				
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	
				5 mg	
				10 mg	
				10 mM	
			1 mg	5 mg	10 mg
	1 mM		0.6999 mL	3.4997 mL	6.9994 mL
	5 mM		0.1400 mL	0.6999 mL	1.3999 mL
	10 mM		0.0700 mL	0.3500 mL	0.6999 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (35.00 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	RFRP-1(human) is a gonadotropin-inhibitory hormone (GnIH) homolog. RFRP-1(human) targets human gonadotropin-releasing hormone (GnRH) neurons and gonadotropes and potently inhibits gonadotropin. RFRP-1(human) is a potent Neuropeptide FF (NPFF) receptor agonist with EC ₅₀ s of 0.0011 nM and 29 nM for NPFF2 and NPFF1, respectively ^{[1][2][3]} .
In Vivo	RFRP-1(human) rapidly and reversibly decreases shortening and relaxation in isolated mammalian cardiac myocytes in a dose dependent manner ^[2] . Intravenous injection of RFRP-1(human) in mice decreases heart rate, stroke volume, ejection fraction, and cardiac output ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Takayoshi Ubuka, et al. Identification of human GnIH homologs, RFRP-1 and RFRP-3, and the cognate receptor, GPR147 in the human hypothalamic pituitary axis. PLoS One. 2009 Dec 22;4(12):e8400.
- [2]. R Nichols, et al. Human RFamide-related peptide-1 diminishes cellular and integrated cardiac contractile performance. Peptides. 2010 Nov;31(11):2067-74.
- [3]. C Gouardères, et al. Functional differences between NPFF1 and NPFF2 receptor coupling: high intrinsic activities of RFamide-related peptides on stimulation of [35S]GTPgammaS binding. Neuropharmacology. 2007 Feb;52(2):376-86.
-

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