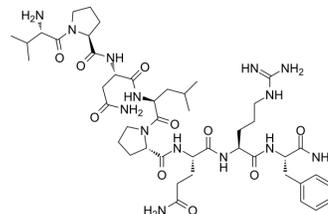


RFRP-3(human)

Cat. No.:	HY-P1250
CAS No.:	311309-27-0
Molecular Formula:	C ₄₅ H ₇₂ N ₁₄ O ₁₀
Molecular Weight:	969.14
Sequence Shortening:	VPNLPQRF-NH ₂
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

DMSO : ≥ 100 mg/mL (103.18 mM)
 * "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.0318 mL	5.1592 mL	10.3184 mL
	5 mM	0.2064 mL	1.0318 mL	2.0637 mL
	10 mM	0.1032 mL	0.5159 mL	1.0318 mL

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

BIOLOGICAL ACTIVITY

Description

RFRP-3 (Neuropeptide VF(124-131))(human), a human GnIH peptide homolog, is a potent inhibitor of gonadotropin secretion by inhibiting Ca²⁺ mobilization. RFRP-3(human) is a NPFF1 receptor agonist, it inhibits forskolin-induced production of cAMP with an IC₅₀ of 0.7 nM^[1].

In Vitro

RFRP-3 efficiently inhibits forskolin-induced production of cAMP with an IC₅₀ of 0.7 nM^[1]. Scatchard-plot analysis shows that ¹²⁵I-labelled hRFRP-3 has a single class of high-affinity binding sites for the membrane fractions of CHO cells expressing rat OT7T022, the K_d value and the B_{max} values are 0.19 nM and 1.3 pM, respectively. RFRP-3 specifically stimulate cells transfected with a new orphan 7TMR, OT7T022, it binds to OT7T022 as a specific ligand with high affinity (K_d= 0.19 nM)^[1]. RFRP-3 (10⁻⁸ to 10⁻¹⁴M) has no effect on LH and FSH levels alone, but when it combines with GnRH, LH and FSH secretion is significantly reduced by the combination^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Iain J Clarke, et al. Potent action of RFamide-related peptide-3 on pituitary gonadotropes indicative of a hypophysiotropic role in the negative regulation of gonadotropin secretion. *Endocrinology*

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

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