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-NH2

Target: Neuropeptide Y Receptor

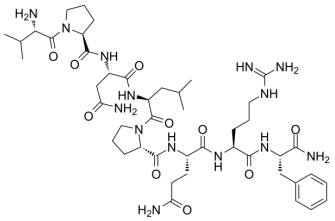
Pathway: GPCR/G Protein; Neuronal Signaling

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

DMSO : ≥ 100 mg/mL (103.18 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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 Ca^{2+} mobilization. RFRP-3(human) is a NPFF1 receptor agonist, it inhibits forskolin-induced production of cAMP with an IC_{50} of 0.7 nM[1].

In Vitro

RFRP-3 efficiently inhibits forskolin-induced production of cAMP with an IC_{50} of 0.7 nM[1].

Scatchard-plot analysis shows that ^{125}I-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^{-14}M) 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

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