

## RFRP-3(human)

Cat. No.:	HY-P1250
CAS No.:	311309-27-0
Molecular Formula:	C <sub>45</sub> H <sub>72</sub> N <sub>14</sub> O <sub>10</sub>
Molecular Weight:	969.14
Sequence Shortening:	VPNLPQRF-NH2
Target:	Neuropeptide Y Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	RFRP-3 (Neuropeptide VF(124-131))(human), a human GnIH peptide homolog, is a potent inhibitor of gonadotropin secretion by inhibiting Ca <sup>2+</sup> mobilization. RFRP-3(human) is a NPFF1 receptor agonist, it inhibits forskolin-induced production of cAMP with an IC <sub>50</sub> of 0.7 nM <sup>[1]</sup> .
<b>In Vitro</b>	RFRP-3 efficiently inhibits forskolin-induced production of cAMP with an IC <sub>50</sub> of 0.7 nM <sup>[1]</sup> . Scatchard-plot analysis shows that <sup>125</sup> 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 <sub>d</sub> value and the B <sub>max</sub> 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 <sub>d</sub> = 0.19 nM) <sup>[1]</sup> . RFRP-3 (10 <sup>-8</sup> to 10 <sup>-14</sup> 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 <sup>[1]</sup> . 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*

[2]. 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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