

PRODUCT INFORMATION

Neuropeptide Y (13-36) (human, rat) (trifluoroacetate salt)

Item No. 24714

Synonym:	NPY (13-36) (human, rat)	H-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr-Tyr-Ser-
MF:	C ₁₃₄ H ₂₀₇ N ₄₁ O ₃₆ S • XCF ₃ COOH	Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Ile-Thr-
FW:	3,000.4	Arg-Gln-Arg-Tyr-NH ₂
Purity:	≥95%	
Supplied as:	A lyophilized powder	
Storage:	-20°C	• XCF ₃ COOH
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Neuropeptide Y (NPY) (13-36) (human, rat) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the NPY (13-36) (human, rat) (trifluoroacetate salt) in water. The solubility of NPY (13-36) (human, rat) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NPY (13-36) is a C-terminal fragment of NPY, a neuropeptide involved in controlling appetite, blood pressure, cardiac contractility, and intestinal secretion.¹ NPY (13-36) is an agonist of the NPY receptor Y₂ with K_i values of 1.28 and 2.62 nM for the rat recombinant receptor in CHO cells and in rat jejunal crypt cell membranes, respectively.² It inhibits forskolin-induced cAMP accumulation with EC₅₀ values of 300, 2.2, >1,000, and 20 at Y₁, Y₂, Y₄, and Y₅ receptors, respectively, *in vitro*.³ NPY (13-36) inhibits basal short circuit currents (EC₅₀ = ~2 μM) and electrical field stimulated-secretory responses in isolated rat jejunal mucosa (EC₅₀ = ~200 nM) but does so less potently than NPY (Item Nos. 24716 | 15071).⁴ NPY (13-36) also reduces the frequency of spontaneous excitatory postsynaptic currents (EPSCs) in the CA3 region of hippocampal slices from wild-type but not Y₅ receptor knockout mice.⁵

References

1. Balasubramaniam, A. Neuropeptide Y family of hormones: Receptor subtypes and antagonists. *Peptides* **18**(3), 445-457 (1997).
2. Goumain, M., Voisin, T., Lorinet, A.-M., *et al.* The peptide YY-preferring receptor mediating inhibition of small intestinal secretion is a peripheral Y₂ receptor: Pharmacological evidence and molecular cloning. *Mol. Pharmacol.* **60**(1), 124-134 (2001).
3. Gerald, C., Walker, M.W., Criscione, L., *et al.* A receptor subtype involved in neuropeptide-Y-induced food intake. *Nature* **382**(6587), 168-171 (1996).
4. Cox, H.M. and Cuthbert, A.W. The effects of neuropeptide Y and its fragments upon basal and electrically stimulated ion secretion in rat jejunum mucosa. *Br. J. Pharmacol.* **101**(2), 247-252 (1990).
5. Guo, H., Castro, P.A., Palmiter, R.D., *et al.* Y₅ receptors mediate neuropeptide Y actions at excitatory synapses in area CA3 of the mouse hippocampus. *J. Neurophysiol.* **87**(1), 558-566 (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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