

Neuropeptide Y (human) (TFA)

Cat. No.:	HY-P0198A
Molecular Formula:	C ₁₉₁ H ₂₈₆ F ₃ N ₅₅ O ₅₉ S
Molecular Weight:	4385.7
Sequence:	Tyr-Pro-Ser-Lys-Pro-Asp-Asn-Pro-Gly-Glu-Asp-Ala-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr-Tyr-Ser-Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Ile-Thr-Arg-Gln-Arg-Tyr-NH ₂ <small>YPSKPDNPGEDAPAEDMARYYSALRHYINLITRQRY-NH₂ (TFA salt)</small>
Sequence Shortening:	YPSKPDNPGEDAPAEDMARYYSALRHYINLITRQRY-NH ₂
Target:	Neuropeptide Y Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (22.80 mM); Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		0.2280 mL	1.1401 mL	2.2801 mL
		5 mM		0.0456 mL	0.2280 mL	0.4560 mL
		10 mM		0.0228 mL	0.1140 mL	0.2280 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (22.80 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Neuropeptide Y (human) TFA is involved in Alzheimer's disease (AD) and protects rat cortical neurons against β -Amyloid toxicity.
In Vitro	It is showed that Neuropeptide Y (human) is able to protect cortical neurons from A β ₂₅₋₃₅ toxicity. 2 μ M NPY abolishes the toxic effects of A β ₂₅₋₃₅ at 24 and 48 h. The same effect on neuronal survival is observed in neurons exposed to 1 μ M and 0.5 μ M Neuropeptide Y (human) pretreatments. Pretreatment with Neuropeptide Y (29-64), amide, human (TFA) Increases NGF Synthesis, reduces NGF mRNA, and restores NGF release in cortical neurons exposed to A β ₃₅₋₂₅ ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

Primary cortical neurons are preincubated either alone (positive control) or with three concentrations of Neuropeptide Y (human) (NPY) (0.5, 1, and 2 μ M) for 24 h and then exposed to A β ₂₅₋₃₅ (50 μ M) or A β ₃₅₋₂₅ (50 μ M) for 48 h^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Croce N, et al. Neuropeptide Y protects rat cortical neurons against β -amyloid toxicity and re-establishes synthesis and release of nerve growth factor. ACS Chem Neurosci. 2012 Apr 18;3(4):312-8.

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