

PRODUCT INFORMATION



Neuropeptide Y (human, rat)

Item No. 15071

CAS Registry No.: 90880-35-6

Synonym: NPY (human, rat)

Peptide Sequence: YPSKPDNPGEDAPAEDMARYYSALRHYIN
LITRQRY-NH₂
(Modifications: Tyr-36 = C-terminal amide)

FW: 4,271.7

Purity: ≥95%

UV/Vis.: λ_{max}: 279 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

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 — NH₂

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

Laboratory Procedures

Neuropeptide Y (human, rat) (NPY) is supplied as a crystalline solid. A stock solution may be made by dissolving the NPY in the solvent of choice, which should be purged with an inert gas. NPY is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NPY in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NPY can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of NPY in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NPY is a peptide abundantly distributed throughout the central and peripheral nervous systems that plays a major role in controlling appetite, blood pressure, cardiac contractility, and intestinal secretion.¹ Five subtypes of the NPY receptor have been identified. Subtypes Y₁ and Y₅ have known roles in the stimulation of feeding while Y₂ and Y₄ seem to have roles in satiety.¹ NPY has also been shown to interact with the immune system, promoting gastrointestinal inflammation, as well as exhibiting an antimicrobial effect against several gut bacteria.²

References

1. Balasubramaniam, A. Neuropeptide Y family of hormones: Receptor subtypes and antagonists. *Peptides* **18**, 445-457 (1997).
2. Holzer, P., Reichmann, F., and Farzi, A. Neuropeptide Y, peptide YY and pancreatic polypeptide in the gut-brain axis. *Neuropeptides* **46**(6), 261-274 (2012).

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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