SYSY Antibodies

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Neurotensin

Cat.No. 418 005; Polyclonal Guinea pig antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For **reconstitution** add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: not tested yet **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 100 up to 1 : 500 **IHC-P (FFPE)**: 1 : 100
Immunogen	Synthetic peptide corresponding to AA 150 to 162 from mouse Neurotensin/neuromedin N (UniProt Id: Q9D3P9)
Reactivity	Reacts with: mouse (Q9D3P9), rat (P20068), human (P30990). Other species not tested yet.
Specificity	The antibody recognizes Neurotensin. It may crossreact to the unprocessed precursor protein.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Background

Neurotensin, also referred to as **NT** or **Nts** is a 13 amino acid neuropeptide that is processed from a precursor protein that also contains the related neuromedin N. It has a highly conserved C-terminal portion (8–13) which is responsible for its biological activity.
Neurotensin is widely distributed throughout the central nervous system. The highest expression levels are seen in the hypothalamus, amygdala and nucleus accumbens. In the periphery, it is produced by endocrine cells (N cells) of the intestine, where it leads to secretion and smooth muscle contraction.
Neurotensin is involved in the regulation of dopamine pathways, in the maintenance of gut structure and function, and in the regulation of fat metabolism.
Neurotensin has been shown to produce a spectrum of pharmacological effects resembling those of antipsychotic drugs, leading to the suggestion that neurotensin may be an endogenous neuroleptic.

Selected References for 418 005

Differential recruitment of ventral pallidal e-types by behaviorally salient stimuli during Pavlovian conditioning.
Hegedüs P, Heckenast J, Hangya B
iScience (2021) 244: 102377. . **IHC; tested species: mouse**

Downstream interaction by glucagon-like peptide-1 and glucose-dependent insulinotropic polypeptide agonism is required for synergistic effects on body weight.
Feetham CH, Ai M, Culotta I, Costa A, Hunter J, Coskun T, Emmerson PJ, D'Agostino G, Luckman SM
Molecular metabolism (2025) : 102214. . **IHC; tested species: mouse**

iPSC-derived models of PACS1 syndrome reveal transcriptional and functional deficits in neuron activity.
Rylaarsdam L, Rakotomamonjy J, Pope E, Guemez-Gamboa A
Nature communications (2024) 151: 827. . **IHC; tested species: human**

Selected General References

Potential roles of neurotensin on cognition in conditions of obese-insulin resistance.
Saiyasit N et al. Neuropeptides (2018) PubMed:30279001

Multitasking with neurotensin in the central nervous system.
Dobner PR et al. Cell. Mol. Life Sci. (2005) PubMed:16003489

The amino acid sequence of a hypothalamic peptide, neurotensin.
Carraway R et al. J. Biol. Chem. (1975) PubMed:1167549

Access the online factsheet including applicable protocols at https://sysy.com/product/418005 or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All SYSY antibodies and control proteins/peptides are shipped lyophilized (vacuum freeze-dried). In this form, they remain stable without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- **Unlabeled** and **biotin-labeled antibodies** and **control proteins** should be stored at **4°C** before reconstitution. **Do not freeze lyophilized antibodies**. Temperatures below 0°C may impair performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long-term storage of lyophilized fluorophore-conjugates may cause aggregation.
- **Control peptides** should be stored at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- **Do not use frost-free ("no-frost") freezers.** These units periodically warm to remove ice buildup, causing freeze–thaw cycles that can damage antibodies.
- Store vials in areas with minimal temperature fluctuation - preferably toward the back of the freezer, not on the door.
- Aliquot reconstituted antibodies and store at –20°C to –80°C.
- Avoid very small aliquots (<20 µL), as evaporation and adsorption to tube surfaces can reduce antibody concentration and activity.
- Use the smallest practical storage vial to minimize surface area.
- Adding glycerol to a final concentration of 50% prevents freezing at -20°C, allowing storage in liquid form and effectively avoiding freeze–thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C

Monoclonal Antibodies

- **Ascites and hybridoma supernatant:** Store at -20°C to -80°C
  Prolonged storage at 4°C is not recommended, as proteases present in ascites may degrade antibodies.
- **Purified IgG:** Store at -20°C to -80°C
  Adding a carrier protein (e.g., BSA) enhances long-term stability.
  Many SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Polyclonal Antibodies

- **Crude antisera:** Can be stored at 4°C with antimicrobials added, but -20°C to -80°C is preferred
- **Affinity-purified antibodies:** Less stable than antisera; store at -20°C to -80°C
  Adding a carrier protein such as BSA improves long-term stability.
  Most SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Fluorescence-labeled Antibodies

- Store as a liquid with 1:1 (v/v) glycerol at -20°C, and protect from light exposure

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All purified SYSY antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the volume of deionized water specified in the corresponding datasheet. If a larger final volume is desired, first add the recommended amount of water, then adjust with PBS and, if needed, add a stabilizing carrier protein (e.g., BSA) to a final concentration of 2%. Some SYSY antibodies already contain albumin; please take this into account before adding additional carrier protein.

For complete reconstitution, carefully remove the vial cap. After adding water, briefly vortex the solution. To collect the liquid at the bottom of the vial, place the vial inside a 50 ml centrifuge tube padded with paper and centrifuge briefly.

- If desired, small amounts of azide or thimerosal may be added to prevent microbial growth. This is particularly recommended when storing an aliquot at 4°C.
- After reconstitution of fluorescence-labeled antibodies, add glycerol 1:1 (v/v) to achieve a final concentration of 50%. This prevents freezing at –20°C and keeps the antibody in liquid form, effectively avoiding freeze–thaw cycles.
- Glycerol may also be added to unlabeled primary antibodies as a general measure to prevent freeze–thaw damage.
- For further guidance, please refer to our **storage tips** and recommendations for reconstituted antibodies, control peptides, and control proteins.