SYSY Antibodies

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Somatostatin-28

Cat.No. 366 006; Polyclonal chicken antibody, 200 µl specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For **reconstitution** add 200 µl H_2O. 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 recommended **IP**: not tested yet **ICC**: 1 : 500 up to 1 : 1000 **IHC**: 1 : 500 up to 1 : 1000 **IHC-P (FFPE)**: 1 : 500 up to 1 : 1000
Immunogen	Synthetic peptide corresponding to AA 89 to 100 from mouse Somatostatin (UniProt Id: P60041)
Reactivity	Reacts with: rat (P60042), mouse (P60041). Other species not tested yet.
Specificity	This antibody preferentially recognizes somatostatin-28. It only shows minor cross-reactivity to the unprocessed precursor protein and does not detect somatostatin-14.

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

Background

Somatostatin, also referred to as **SST**, **growth hormone-inhibiting hormone** or **GHIH**, is a peptide hormone that regulates the endocrine system and affects neurotransmission and cell proliferation via interaction with G protein-coupled somatostatin receptors. It inhibits the secretion of many important hormones, including insulin, glucagon and somatotropin (also designated growth hormone, or GH). Somatostatin has two forms, active 14 amino acid and 28 amino acid. They are produced by alternative cleavage of the single precursor protein encoded by this gene.

For more information on protein expression pattern, please refer to the overview image in our SYSY Antibodies ATLAS.

Selected References for 366 006

CXCL12 Engages Cortical Inhibitory Neurons to Enhance Dendritic Spine Plasticity and Structured Network Activity.
Ho C, Luchetta J, Nash B, Festa LK, Johnson JA, Sacan A, Jackson JG, Sanz-Clemente A, Brandimarti R, Meucci O
The Journal of neuroscience : the official journal of the Society for Neuroscience (2025) 4524: . . **ICC; tested species: rat**

Light-microscopy-based connectomic reconstruction of mammalian brain tissue.
Tavakoli MR, Lyudchik J, Januszewski M, Vistunou V, Agudelo Dueñas N, Vorlaufer J, Sommer C, Kreuzinger C, Oliveira B, Cenameri A, Novarino G, et al.
Nature (2025) 6428067: 398-410. . **EXM; tested species: mouse**

Amygdala inhibitory neurons as loci for translation in emotional memories.
Shrestha P, Shan Z, Mamcarz M, Ruiz KSA, Zerihoun AT, Juan CY, Herrero-Vidal PM, Pelletier J, Heintz N, Klann E
Nature (2020) 5867829: 407-411. . **IHC; tested species: mouse**

Moderate beta-cell ablation triggers synergic compensatory mechanisms even in the absence of overt metabolic disruption.
Mathisen AF, Larsen U, Kavli N, Unger L, Daian LM, Vacaru AM, Vacaru AM, Herrera PL, Ghila L, Chera S
Communications biology (2024) 71: 833. . **IHC; tested species: mouse**

INSIHGT: an accessible multi-scale, multi-modal 3D spatial biology platform.
Yau CN, Hung JTS, Campbell RAA, Wong TCY, Huang B, Wong BTY, Chow NKN, Zhang L, Tsoi EPL, Tan Y, Li JJX, et al.
Nature communications (2024) 151: 10888. . **IHC; tested species: mouse**

Purkinje cell microzones mediate distinct kinematics of a single movement.
Blot FGC, White JJ, van Hattem A, Scotti L, Balaji V, Adolfs Y, Pasterkamp RJ, De Zeeuw CI, Schonewille M
Nature communications (2023) 141: 4358. . **IHC; tested species: mouse**

Selected General References

Somatostatin and its receptors from fish to mammals.
Gahete MD et al. Ann. N. Y. Acad. Sci. (2010) PubMed:20633132

The somatostatin-28(1-12)-NPAMAP sequence: an essential helical-promoting motif governing prosomatostatin processing at mono- and dibasic sites.
Brakch N et al. Biochemistry (2002) PubMed:11814357

Interrelationships between somatostatin sst2A receptors and somatostatin-containing axons in rat brain: evidence for regulation of cell surface receptors by endogenous somatostatin.
Dournaud P et al. J. Neurosci. (1998) PubMed:9437026

Somatostatin antisense oligodeoxynucleotide-mediated stimulation of lymphocyte proliferation in culture.
Aguila MC et al. Endocrinology (1996) PubMed:8612489

All five cloned human somatostatin receptors (hSSTR1-5) are functionally coupled to adenylyl cyclase.
Patel YC et al. Biochem. Biophys. Res. Commun. (1994) PubMed:7905265

Access the online factsheet including applicable protocols at https://sysy.com/product/366006 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.