SYSY Antibodies

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Somatostatin-28

Cat.No. 366 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For **reconstitution** add 100 µl H_2O, then aliquot and store at -20°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**: 1 : 500 **IHC**: 1 : 500 **IHC-P (FFPE)**: 1 : 500
Immunogen	Synthetic peptide corresponding to AA 89 to 100 from mouse Somatostatin (UniProt Id: P60041)
Reactivity	Reacts with: human (P61278), 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 366 004

Generation of self-organized autonomic ganglion organoids from fibroblasts.
Liu S, Xiang K, Yuan F, Xiang M
iScience (2023) 263: 106241. . **ICC; tested species: mouse**

Amyloid β induces interneuron-specific changes in the hippocampus of APPNL-F mice.
Sos KE, Mayer MI, Takács VT, Major A, Bardóczi Z, Beres BM, Szeles T, Saito T, Saido TC, Mody I, Freund TF, et al.
PloS one (2020) 155: e0233700. . **EM; tested species: mouse**

Phase-specific surround suppression in mouse primary visual cortex correlates with figure detection behavior based on phase discontinuity.
Li F, Jiang W, Wang TY, Xie T, Yao H
Neuroscience (2018) : . . **IHC; tested species: mouse**

Predominant NR1-positive puncta with limited PSD95 colocalization and close GluA2-EAAT2 apposition in the preBötzinger complex.
Olmos-Pastoresa CA, Vázquez-Mendoza E, Vázquez-Martínez O, López-Meraz ML, Beltran-Parrazal L, Morgado-Valle C
Histochemistry and cell biology (2026) 1641: . . **IHC; tested species: rat**

Vitamin D Regulates Olfactory Function via Dual Transcriptional and mTOR-Dependent Translational Control of Synaptic Proteins.
Ren P, Cao R, Ye X, Pang W, Bi Q, Huang M, Zhou Q, Ye D, Xiang W, Xiao L
Advanced science (Weinheim, Baden-Wurttemberg, Germany) (2025) : e07181. . **IHC; tested species: mouse**

Synaptic and dendritic architecture of different types of hippocampal somatostatin interneurons.
Takács V, Bardóczi Z, Orosz Á, Major A, Tar L, Berki P, Papp P, Mayer MI, Sebők H, Zsolt L, Sos KE, et al.
PLoS biology (2024) 223: e3002539. . **IHC; tested species: mouse**

Selective prosaposin expression in Langerhans islets of the mouse pancreas.
Fuyuki A, Sohel MSH, Homma T, Kitamura K, Takashima S, Onouchi S, Saito S
Tissue & cell (2024) 88: 102367. . **IHC; tested species: mouse**

Voluntary running-induced activation of ventral hippocampal GABAergic interneurons contributes to exercise-induced hypoalgesia in neuropathic pain model mice.
Minami K, Kami K, Nishimura Y, Kawanishi M, Imashiro K, Kami T, Habata S, Senba E, Umemoto Y, Tajima F
Scientific reports (2023) 131: 2645. . **IHC; tested species: mouse**

PDGF-BB-Dependent Neurogenesis Buffers Depressive-Like Behaviors by Inhibition of GABAergic Projection from Medial Septum to Dentate Gyrus.
Li HH, Liu Y, Chen HS, Wang J, Li YK, Zhao Y, Sun R, He JG, Wang F, Chen JG
Advanced science (Weinheim, Baden-Wurttemberg, Germany) (2023) 1022: e2301110. . **IHC; tested species: mouse**

Nrg1 haploinsufficiency alters inhibitory cortical circuits.
Navarro-Gonzalez C, Carceller H, Benito Vicente M, Serra I, Navarrete M, Domínguez-Canterla Y, Rodríguez-Prieto Á, González-Manteiga A, Fazzari P
Neurobiology of disease (2021) 157: 105442. . **IHC; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/366004 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.