SYSY Antibodies

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Serum albumin

Cat.No. 286 003; Polyclonal rabbit antibody, 100 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg specific antibody, lyophilized. Affinity purified with the immunogen. Azide was added before lyophilization. For **reconstitution** add 100 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**: 1 : 1000 (AP staining) (see remarks) **IP**: not tested yet **ICC**: N/A **IHC**: 1 : 400 (see remarks) **IHC-P (FFPE)**: not tested yet
Immunogen	Nativ Protein corresponding to AA 1 to 607 from bovine Serum albumin (UniProt Id: P02769)
Reactivity	Reacts with: human (P02768), rat (P02770), mouse (P07724), Guinea pig, horse, donkey, cow, sheep, goat. No signal: rabbit (P49065). Other species not tested yet.
Remarks	**WB**: Do not use albumin containing buffers for blocking. Detects 25 ng of BSA. Serum albumin of other species is probably detected with lower sensitivity. **IHC**: Do not use albumin containing buffers for blocking.

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

Background

Albumins are globular, water soluble proteins. **Serum albumin** is the major protein in blood plasma and binds to different substances like cations, fatty acids, hormones, certain pharmaceuticals etc. However its main function is to regulate the colloidal osmotic pressure of blood.

Selected References for 286 003

Blood-brain barrier breakdown involves four distinct stages of vascular damage in various models of experimental focal cerebral ischemia.
Krueger M, Bechmann I, Immig K, Reichenbach A, Härtig W, Michalski D
Journal of cerebral blood flow and metabolism : official journal of the International Society of Cerebral Blood Flow and Metabolism (2015) 352: 292-303. . **IHC; tested species: mouse**

Immunosignals of Oligodendrocyte Markers and Myelin-Associated Proteins Are Critically Affected after Experimental Stroke in Wild-Type and Alzheimer Modeling Mice of Different Ages.
Michalski D, Keck AL, Grosche J, Martens H, Härtig W
Frontiers in cellular neuroscience (2018) 12: 23. . **IHC; tested species: mouse**

Delayed histochemical alterations within the neurovascular unit due to transient focal cerebral ischemia and experimental treatment with neurotrophic factors.
Michalski D, Pitsch R, Pillai DR, Mages B, Aleithe S, Grosche J, Martens H, Schlachetzki F, Härtig W
PloS one (2017) 124: e0174996. . **IHC**

Stroke-induced blood-brain barrier breakdown along the vascular tree - No preferential affection of arteries in different animal models and in humans.
Krueger M, Härtig W, Frydrychowicz C, Mueller WC, Reichenbach A, Bechmann I, Michalski D
Journal of cerebral blood flow and metabolism : official journal of the International Society of Cerebral Blood Flow and Metabolism (2017) 377: 2539-2554. . **IHC; tested species: human**

Selected General References

Role of the magnesium cation on antihypertensive molecule-human serum albumin binding: affinity chromatography approach.
Guillaum YC et al. J. Chromatogr. B Analyt. Technol. Biomed. Life Sci. (2002) PubMed:11939546

Access the online factsheet including applicable protocols at https://sysy.com/product/286003 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.