SYSY Antibodies

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LAMP3

Cat.No. 391 005; 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 : 500 **IHC-P**: 1 : 200 up to 1 : 5000
Immunogen	Synthetic peptide corresponding to C-terminal residues of mouse LAMP3. (UniProt Id: Q7TST5)
Reactivity	Reacts with: mouse (Q7TST5), rat (Q5XI99). No signal: human (Q9UQV4). Other species not tested yet.
Specificity	Recognizes LAMP 3, no crossreactivity to LAMP 1, LAMP 2 and LAMP 5. K.O. validated

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

Background

LAMP3 (**l**ysosome-**a**ssociated **m**embrane glyco**p**rotein **3**), also referred to as **DC-LAMP** (dendritic cell LAMP) or **CD 208**, is a member of the LAMP protein family and a single-pass type I transmembrane protein that can be variably glycosylated. It is specifically expressed in lung type II pneumocytes and by activated human dendritic cells (1, 2).
Recent studies demonstrated high expression of LAMP3 in a variety of malignancies including squamous cell carcinoma, gastrointestinal cancer, breast cancer, ovarian cancer, and cervical cancer. Its expression has been associated with metastasis and poor overall survival (3, 4, 5).

Selected References for 391 005

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He H, Bell SM, Davis AK, Zhao S, Sridharan A, Na CL, Guo M, Xu Y, Snowball J, Swarr DT, Zacharias WJ, et al.
bioRxiv : the preprint server for biology (2023) : . . **IHC-P; tested species: mouse**

Multi-lineage Lung Regeneration by Stem Cell Transplantation across Major Genetic Barriers.
Hillel-Karniel C, Rosen C, Milman-Krentsis I, Orgad R, Bachar-Lustig E, Shezen E, Reisner Y
Cell reports (2020) 303: 807-819.e4. . **IHC; tested species: mouse**

Stc1-expressing myofibroblasts are a developmentally distinct lineage cleared through apoptosis in the neonatal lung.
Snitow ME, Michki SN, Chaudhry FN, Park Y, Dherwani R, Katzen JB, Frank DB, Zepp JA
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Emergence of inflammatory fibroblasts with aging in Hermansky-Pudlak syndrome associated pulmonary fibrosis.
Banaschewski BJH, Michki SN, Sitaraman S, Pan R, Wang JY, Stewart D, Goldy MK, Lin SM, Cantu E, Katzen JB, Basil MC, et al.
Communications biology (2025) 81: 284. . **IHC; tested species: mouse**

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Kim E, Wells BK, Indralingam H, Su Y, Verheyden J, Sun X
JCI insight (2025) 1013: . . **IHC; tested species: mouse**

Multimodal spatial-omics reveal co-evolution of alveolar progenitors and proinflammatory niches in progression of lung precursor lesions.
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Stem cell migration drives lung repair in living mice.
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Dysregulated alveolar epithelial cell progenitor function and identity in Hermansky-Pudlak syndrome.
Wang JY, Michki SN, Sitaraman S, Banaschewski BJ, Jamal R, Gokey JJ, Lin SM, Katzen JB, Basil MC, Cantu E, Kropski JA, et al.
JCI insight (2024) 103: . . **IHC; tested species: mouse**

Efficient Adeno-associated Virus-mediated Transgenesis in Alveolar Stem Cells and Associated Niches.
Konkimalla A, Elmore Z, Konishi S, Macadlo L, Katsura H, Tata A, Asokan A, Tata PR
American journal of respiratory cell and molecular biology (2023) 693: 255-265. . **IHC; tested species: mouse**

Transitional cell states sculpt tissue topology during lung regeneration.
Konkimalla A, Konishi S, Macadlo L, Kobayashi Y, Farino ZJ, Miyashita N, El Haddad L, Morowitz J, Barkauskas CE, Agarwal P, Souma T, et al.
Cell stem cell (2023) 3011: 1486-1502.e9. . **IHC; tested species: mouse**

Multi-apical polarity of alveolar stem cells and their dynamics during lung development and regeneration.
Konkimalla A, Konishi S, Kobayashi Y, Kadur Lakshminarasimha Murthy P, Macadlo L, Mukherjee A, Elmore Z, Kim SJ, Pendergast AM, Lee PJ, Asokan A, et al.
iScience (2022) 2510: 105114. . **IHC; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/391005 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.