SYSY Antibodies

Rudolf-Wissell-Str. 28a
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

# LAMP3

**Cat.No. 391 308; Recombinant Guinea pig antibody, 50 µg recombinant IgG (lyophilized)**

## Data Sheet

| | |
|---|---|
| Reconstitution/ Storage | 50 µg purified recombinant IgG, lyophilized. 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.<br>Antibodies should be stored at +4°C when still lyophilized. Do not freeze!<br>For detailed information, see back of the data sheet. |
| Applications | **WB**: not tested yet<br>**Dot blot**: 1 : 1000 (AP staining) (see remarks)<br>**IP**: not tested yet<br>**ICC**: not tested yet<br>**IHC**: 1 : 500 up to 1 : 2000<br>**IHC-P (FFPE)**: 1 : 1000 up to 1 : 10000 |
| Clone | Gp325C4 |
| Subtype | IgG2 (κ light chain) |
| Immunogen | Synthetic peptide corresponding to C-terminal residues of mouse LAMP3 (UniProt Id: Q7TST5) |
| Reactivity | Reacts with: mouse (Q7TST5), rat (Q5XI99), human (Q9UQV4).<br>Other species not tested yet. |
| Specificity | K.O. validated |
| Remarks | This antibody is a chimeric antibody based on a monoclonal rat antibody. The constant regions of the heavy and light chains have been replaced with guinea pig specific sequences. Therefore, the antibody can be used with standard anti-guinea pig secondary reagents. The antibody has been expressed in mammalian cells.<br>**Dot blot**: This application was only tested with synthetic peptides. |

**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 General References

A novel lysosome-associated membrane glycoprotein, DC-LAMP, induced upon DC maturation, is transiently expressed in MHC class II compartment.
de Saint-Vis B et al. Immunity (1998) PubMed:9768752

LAMP3 expression correlated with poor clinical outcome in human ovarian cancer.
Wang D et al. Tumour Biol. (2017) PubMed:28349821

High Expression of LAMP3 Is a Novel Biomarker of Poor Prognosis in Patients with Esophageal Squamous Cell Carcinoma.
Liao X et al. Int J Mol Sci (2015) PubMed:26263981

CD208/dendritic cell-lysosomal associated membrane protein is a marker of normal and transformed type II pneumocytes.
Salaun B et al. Am J Pathol (2004) PubMed:14982840

Isolation and characterization of a novel human lung-specific gene homologous to lysosomal membrane glycoproteins 1 and 2: significantly increased expression in cancers of various tissues.
Ozaki K et al. Cancer Res (1998) PubMed:9721848

Access the online factsheet including applicable protocols at https://sysy.com/product/391308 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.