SYSY Antibodies

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CD8a mouse specific

Cat.No. 361 003; Polyclonal rabbit antibody, 200 µl specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl specific antibody, lyophilized. Affinity purified with the immunogen. Azide was added before lyophilization. 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.
Concentration	0.2 mg/ml
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 100 (see remarks) **IHC-P (FFPE)**: 1 : 100 **IHC-Fr**: 1 : 100 (see remarks)
Immunogen	Synthetic peptide corresponding to AA 230 to 247 from mouse CD8a (UniProt Id: P01731)
Reactivity	Reacts with: mouse (P01731). Weaker signal: rat (P07725). No signal: human. Other species not tested yet.
Remarks	**IHC**: Antigen retrieval with citrate buffer pH 6 is required. **IHC-Fr**: Methanol fixation is recommended.

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

Background

CD 8 is a heterodimeric T-cell surface glycoprotein that consists of a **CD 8a** (alpha) and beta chain. It identifies cytotoxic/suppressor T-cells that interact with MHC class I bearing targets. CD 8 is thought to play a role in the process of T-cell mediated killing. CD 8 alpha chains binds to class I MHC molecules alpha-3 domains.

Selected References for 361 003

Common germline variants of the human APOE gene modulate melanoma progression and survival.
Ostendorf BN, Bilanovic J, Adaku N, Tafreshian KN, Tavora B, Vaughan RD, Tavazoie SF
Nature medicine (2020) : . . **IHC; tested species: mouse**

Immunosuppressive Myeloid Cells' Blockade in the Glioma Microenvironment Enhances the Efficacy of Immune-Stimulatory Gene Therapy.
Kamran N, Kadiyala P, Saxena M, Candolfi M, Li Y, Moreno-Ayala MA, Raja N, Shah D, Lowenstein PR, Castro MG
Molecular therapy : the journal of the American Society of Gene Therapy (2017) 251: 232-248. . **IHC-P**

RAS/MEK/PI3K pathway inhibition augments response to CD40 agonism by targeting CD11b+ Bregs thereby overcoming melanoma PD1-resistance.
Yan C, Luo W, Yang J, Yang J, Chen SC, Bergdorf K, Hu Q, Weiss VL, Johnson DB, Liu Q, Richmond A, et al.
Nature communications (2026) 171: 162. . **IHC-P; tested species: mouse**

Pathogenesis of diffuse large B cell lymphoma proteogenotypes.
Enssle JC, Häupl B, Qoku A, Wang B, Wright GW, Barrans S, Zhou Y, Care MA, Burton C, Gribbin C, Ziello J, et al.
Cancer cell (2026) : . . **IHC-P; tested species: mouse**

Nanostructured lipid carriers based mRNA vaccine leads to a T cell-inflamed tumour microenvironment favourable for improving PD-1/PD-L1 blocking therapy and long-term immunity in a cold tumour model.
Fournier C, Mercey-Ressejac M, Derangère V, Al Kadi A, Rageot D, Charrat C, Leroy A, Vollaire J, Josserand V, Escudé M, Escaich S, et al.
EBioMedicine (2025) 112: 105543. . **IHC-P; tested species: mouse**

CDK4/6 inhibitors synergize with radiotherapy to prime the tumor microenvironment and enhance the antitumor effect of anti-PD-L1 immunotherapy in triple-negative breast cancer.
Yang WC, Wei MF, Shen YC, Huang CS, Kuo SH
Journal of biomedical science (2025) 321: 79. . **IHC-P; tested species: mouse**

Genetically Engineered and Implantable Mouse Brain Tumor Models: Characterization by Immunohistochemistry and Flow Cytometry.
Mirji A, Singh G, Mujeeb AA, McClellan BL, Li Y, Perez M, Castro MG
Current protocols (2025) 51: e70080. . **IHC-P; tested species: mouse**

Cancer cell-derived IL-1β reverses chemo-immunotherapy resistance in non-small cell lung cancer.
Perrichet A, Lecuelle J, Limagne E, Thiefin M, Bellio H, Jacob P, Aucagne R, Aznague A, Russo P, Gaucher F, Roussot N, et al.
Nature communications (2025) 161: 10244. . **IHC-P; tested species: mouse**

MS-20 enhances the gut microbiota-associated antitumor effects of anti-PD1 antibody.
Lee PJ, Hung CM, Yang AJ, Hou CY, Chou HW, Chang YC, Chu WC, Huang WY, Kuo WC, Yang CC, Lin KI, et al.
Gut microbes (2024) 161: 2380061. . **IHC; tested species: mouse**

Glutaminase inhibition impairs CD8 T cell activation in STK11-/Lkb1-deficient lung cancer.
Best SA, Gubser PM, Sethumadhavan S, Kersbergen A, Negrón Abril YL, Goldford J, Sellers K, Abeysekera W, Garnham AL, McDonald JA, Weeden CE, et al.
Cell metabolism (2022) : . . **IHC-P; tested species: mouse**

WEE1 inhibition enhances the antitumor immune response to PD-L1 blockade by the concomitant activation of STING and STAT1 pathways in SCLC.
Taniguchi H, Caeser R, Chavan SS, Zhan YA, Chow A, Manoj P, Uddin F, Kitai H, Qu R, Hayatt O, Shah NS, et al.
Cell reports (2022) 397: 110814. . **IHC-P; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/361003 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.