SYSY | HistoSure

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CD8a mouse specific

Cat.No. HS-361 017; Monoclonal rat antibody, 200 µl purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl purified IgG, lyophilized. Albumin and azide were added for stabilization. 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	0.5 mg/ml
Applications	**WB**: 1 : 500 (AP-staining) **IP**: not tested yet **IHC**: not tested yet **IHC-P**: 1 : 100 **IHC-Fr**: 1 : 200 (see remarks)
Clone	GHH8/321E9
Subtype	IgG2a
Immunogen	Synthetic peptide corresponding to AA 230 to 247 from mouse CD8a (UniProt Id: P01731)
Reactivity	Reacts with: mouse (P01731). No signal: human, rat. Other species not tested yet.
Remarks	**IHC-Fr**: PFA 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 HS-361 017

Helicobacter pylori γ-glutamyl transferase contributes to colonization and differential recruitment of T cells during persistence.
Wüstner S, Anderl F, Wanisch A, Sachs C, Steiger K, Nerlich A, Vieth M, Mejías-Luque R, Gerhard M
Scientific reports (2017) 71: 13636. . **IHC-P; tested species: mouse**

Impact of Chemical-Induced Mutational Load Increase on Immune Checkpoint Therapy in Poorly Responsive Murine Tumors.
Kuczynski EA, Krueger J, Chow A, Xu P, Man S, Sundaravadanam Y, Miller JK, Krzyzanowski PM, Kerbel RS
Molecular cancer therapeutics (2018) 174: 869-882. . **IHC-P; tested species: mouse**

Selected General References

Cutting Edge: Resident Memory CD8 T Cells Express High-Affinity TCRs.
Frost EL et al. J. Immunol. (2015) PubMed:26371252

New insights on the role of CD8(+)CD57(+) T-cells in cancer.
Wu RC et al. Oncoimmunology (2012) PubMed:23162769

Mice lacking CD8+ T cells develop greater numbers of IgA-producing cells in response to a respiratory virus infection.
Hyland L et al. Virology (1994) PubMed:8091654

CD4 and CD8 subsets defined by dual-color cytofluorometry which distinguish symptomatic from asymptomatic blood donors seropositive for human immunodeficiency virus.
Prince HE et al. Diagn Clin Immunol (1987) PubMed:2962780

Isolation of pure functionally active CD8+ T cells. Positive selection with monoclonal antibodies directly conjugated to monosized magnetic microspheres.
Gaudernack G et al. J. Immunol. Methods (1986) PubMed:3088118

Function of the CD4 and CD8 molecules on human cytotoxic T lymphocytes: regulation of T cell triggering.
Fleischer B et al. J. Immunol. (1986) PubMed:2419409

Access the online factsheet including applicable protocols at https://sysy-histosure.com/product/HS-361017 or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All our antibodies and control proteins / peptides are shipped lyophilized (vacuum freeze-dried) and are stable in this form 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. **They must not be stored in the freezer when still lyophilized!** Temperatures below zero may cause loss of performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long term storage (several months) may lead to aggregation.
- **Control peptides** should be kept at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- The storage freezer must not be of the frost-free variety ("no-frost freezer"). This cycle between freezing and thawing (to reduce frost-build-up), which is exactly what should be avoided. For the same reason, antibody vials should be placed in an area of the freezer that has minimal temperature fluctuations, for instance towards the back rather than on a door shelf.
- Aliquot the antibody and store frozen (-20°C to -80°C). Avoid very small aliquots (below 20 µl) and use the smallest storage vial or tube possible. The smaller the aliquot, the more the stock concentration is affected by evaporation and adsorption of the antibody to the surface of the storage vial or tube. Adsorption of the antibody to the surface leads to a substantial loss of activity.
- The addition of glycerol to a final concentration of 50% lowers the freezing point of your stock and keeps your antibody at -20°C in liquid state. This efficiently avoids freeze and thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C.

Monoclonal Antibodies

- **Ascites** and **hybridoma supernatant** should be stored at -20°C up to -80°C. **Prolonged storage at 4°C is not recommended!** Unlike serum, ascites may contain proteases that will degrade the antibodies.
- **Purified IgG** should be stored at -20°C up to -80°C. Adding a carrier protein like BSA will increase long term stability. Many of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Polyclonal Antibodies

- **Crude antisera**: With anti-microbials added, they may be stored at 4°C. However, frozen storage (-20°C up to -80°C) is preferable.
- **Affinity purified antibodies**: Less robust than antisera. Storage at -20°C up to -80°C is recommended. Adding a carrier protein like BSA will increase long term stability. Most of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Fluorescence-labeled Antibodies

- Store as a liquid with 1 : 1 (v/v) glycerol at -20°C. Protect these antibodies from light exposure.

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All our purified antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the amount of deionized water given in the respective datasheet. If higher volumes are preferred, add water as mentioned above and then the desired amount of PBS and a stabilizing carrier protein (e.g. BSA) to a final concentration of 2%. Some of our antibodies already contain albumin. Take this into account when adding more carrier protein.
  For complete reconstitution, carefully remove the lid. After adding water, briefly vortex the solution. You can spin down the liquid by placing the vial into a 50 ml centrifugation tube filled with paper.
- If desired, add small amounts of azide or thimerosal to prevent microbial growth. This is especially recommended if you want to keep an aliquot a 4°C.
- After reconstitution of fluorescence-labeled antibodies, add 1 : 1 (v/v) glycerol to a final concentration of 50%. This lowers the freezing point of your stock and keeps your antibody in liquid state at -20°C.
- Glycerol may also be added to unlabeled primary antibodies. It is a suitable way to avoid freeze-thaw cycles.
- Please refer to our **tips and hints for subsequent storage** of reconstituted antibodies and control peptides and proteins.