

CD63

Cat.No. 371 011C2; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized, fluorescence-labeled with Cyanine 2. Albumin was added for stabilization. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Either add 1:1 (v/v) glycerol, then aliquot and store at -20°C until use, or store aliquots at -80°C without additives. Reconstitute immediately upon receipt! Avoid bright light when working with the antibody to minimize photo bleaching of the fluorescent dye. For detailed information, see back of the data sheet.
Applications	WB: not recommended IP: N/A ICC: 1 : 250 up to 1 : 1000 IHC: not tested yet IHC-P: not tested yet FACS: yes
Label	Cyanine 2
Clone	101G9
Subtype	IgG2b (κ light chain)
Immunogen	Purified human basophil granulocytes. (UniProt Id: P08962)
Epitop	Epitop: AA 103 to 203 from human CD63 (UniProt Id: P08962)
Reactivity	Reacts with: human (P08962). Other species not tested yet.

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

Background

CD 63 is a glycoprotein with four transmembrane domains. It is expressed in several cell types and localizes to late endosomes, lysosomes and secretory vesicles. In basophile granulocytes it is transiently exposed on the cell surface after activation. CD 63 expression is also associated with early stages of melanoma tumor progression.

Selected General References

Pancreatic Premalignant Lesions Secrete Tissue Inhibitor of Metalloproteinases-1, Which Activates Hepatic Stellate Cells Via CD63 Signaling to Create a Premetastatic Niche in the Liver.

Grünwald B, Harant V, Schaten S, Frühschütz M, Spallek R, Höchst B, Stutzer K, Berchtold S, Erkan M, Prokopchuk O, Martignoni M, et al.
Gastroenterology (2016) 1515: 1011-1024.e7. .

CD63 tetraspanin is a negative driver of epithelial-to-mesenchymal transition in human melanoma cells.
Lupia A, Peppicelli S, Witort E, Bianchini F, Carloni V, Pimpinelli N, Urso C, Borgognoni L, Capaccioli S, Calorini L, Lulli M, et al.
The Journal of investigative dermatology (2014) 13412: 2947-2956. .

The tetraspanin CD63 is required for efficient IgE-mediated mast cell degranulation and anaphylaxis.
Kraft S, Jouvin MH, Kulkarni N, Kissing S, Morgan ES, Dvorak AM, Schröder B, Saftig P, Kinet JP
Journal of immunology (Baltimore, Md. : 1950) (2013) 1916: 2871-8. .

Human basophil activation measured by CD63 expression and LTC4 release in IgE-mediated food allergy.
Moneret-Vautrin DA, Sainte-Laudy J, Kanny G, Frémont S
Annals of allergy, asthma & immunology : official publication of the American College of Allergy, Asthma, & Immunology (1999) 821: 33-40. .

CD63 antigen. A novel lysosomal membrane glycoprotein, cloned by a screening procedure for intracellular antigens in eukaryotic cells.
Metzelaar MJ, Wijngaard PL, Peters PJ, Sixma JJ, Nieuwenhuis HK, Clevers HC
The Journal of biological chemistry (1991) 2665: 3239-45. .

CD63 cell expression detected by flow-cytometric determination of basophil activation in allergic patients.
Tammaro A, Narcisi A, Amodeo R, Portaro L, Tabacco F, Cardelli P, Persechino S
International journal of immunopathology and pharmacology () 254: 1143-7. .

Access the online factsheet including applicable protocols at <https://sysy.com/product/371011C2> 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.