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CLIP170

Cat.No. 239 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was 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**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: 1 : 200 up to 1 : 500 (see remarks) **IHC**: not tested yet **IHC_P**: not tested yet
Immunogen	Recombinant protein corresponding to AA 1283 to 1438 from human CLIP170 (UniProt Id: P30622)
Reactivity	Reacts with: human (P30622), rat (Q9JK25), mouse (Q922J3). Other species not tested yet.
Specificity	Recognizes CLIP 170 and restin.
Remarks	**ICC**: Fix 15 min at -20°C with ice-cold methanol / 1mM EGTA, then transfer without washing to 4% PFA (in PBS) and fix for 20 min at RT.

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

Background

Cytoplasmic **l**inker **p**roteins (CLIPs) are members of the plus-end-binding protein family (+TIPs) that interact with the growing plus ends of microtubules. They modulate microtubule dynamics and are proposed to link this cytoskeletal network to other intracellular structures.
CLIP 170 has been shown to colocalize with dynactin and dynein at microtubule ends and also at the kinetochore. High levels of a splice variant named **restin** are found in Hodgkin and Reed-Sternberg (HRS) cells, monocyte-derived dendritic cells (DCs) and interleukin-4 (IL-4) CD40L-activated B cells. Restin carries a 35 amino acids long insertion in the center of the molecule.

Selected General References

Probing interactions between CLIP-170, EB1, and microtubules.
Gupta KK, Joyce MV, Slabbekoorn AR, Zhu ZC, Paulson BA, Boggess B, Goodson HV
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CLIP-170 facilitates the formation of kinetochore-microtubule attachments.
Tanenbaum ME, Galjart N, van Vugt MA, Medema RH
The EMBO journal (2006) 251: 45-57. .

Hodgkin and Reed-Sternberg cell-associated autoantigen CLIP-170/restin is a marker for dendritic cells and is involved in the trafficking of macropinosomes to the cytoskeleton, supporting a function-based concept of Hodgkin and Reed-Sternberg cells.
Sahin U, Neumann F, Tureci O, Schmits R, Perez F, Pfreundschuh M
Blood (2002) 10012: 4139-45. .

Dynamic localization of CLIP-170 to microtubule plus ends is coupled to microtubule assembly.
Diamantopoulos GS, Perez F, Goodson HV, Batelier G, Melki R, Kreis TE, Rickard JE
The Journal of cell biology (1999) 1441: 99-112. .

Identification and expression of two novel CLIP-170/Restin isoforms expressed predominantly in muscle.
Griparic L, Keller TC
Biochimica et biophysica acta (1998) 14051-3: 35-46. .

Restin: a novel intermediate filament-associated protein highly expressed in the Reed-Sternberg cells of Hodgkin's disease.
Bilbe G, Delabie J, Brüggen J, Richener H, Asselbergs FA, Cerletti N, Sorg C, Odink K, Tarcsay L, Wiesendanger W
The EMBO journal (1992) 116: 2103-13. .

CLIP-170 links endocytic vesicles to microtubules.
Pierre P, Scheel J, Rickard JE, Kreis TE
Cell (1992) 706: 887-900. .

Access the online factsheet including applicable protocols at https://sysy.com/product/239003 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.