

# CLIP-170 (F-3): sc-28325

## BACKGROUND

Cytoplasmic linker protein (CLIP-170) is the original member of a group of microtubule binding proteins designated as plus-end-binding proteins (+TIPs). CLIP-170 binds to the growing plus-ends of microtubules and acts as a linker between the dynamic microtubule ends and organelle membranes. The protein acts as an anticatastrophic factor, promoting microtubule rescue near the cell periphery. Fluorescently labeled CLIP-170 can be visualized as a comet like streak around the growing ends of microtubules. CLIP-170 co-localizes with Dynactin and Dynein at microtubule ends and also at the kinetochore. Restin, first identified as a marker for Hodgkin and Reed-Sternberg (HRS) cells, is a splice variant of the gene that includes a 35 amino acid stretch not present in CLIP-170. CLIP-170/restin is highly expressed in HRS cells, monocyte-derived dendritic cells, IL-4 + CD40L activated B cells and Ki-1 lymphoma.

## CHROMOSOMAL LOCATION

Genetic locus: CLIP1 (human) mapping to 12q24.31; Clip1 (mouse) mapping to 5 F.

## SOURCE

CLIP-170 (F-3) is a mouse monoclonal antibody raised against amino acids 1128-1427 of CLIP-170 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CLIP-170 (F-3) is available conjugated to agarose (sc-28325 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28325 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28325 PE), fluorescein (sc-28325 FITC), Alexa Fluor® 488 (sc-28325 AF488), Alexa Fluor® 546 (sc-28325 AF546), Alexa Fluor® 594 (sc-28325 AF594) or Alexa Fluor® 647 (sc-28325 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28325 AF680) or Alexa Fluor® 790 (sc-28325 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

CLIP-170 (F-3) is recommended for detection of CLIP-170 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

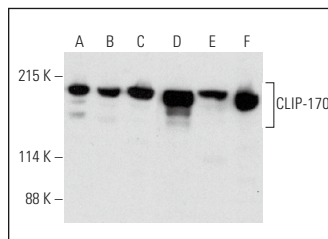
Suitable for use as control antibody for CLIP-170 siRNA (h): sc-43281, CLIP-170 siRNA (m): sc-43282, CLIP-170 shRNA Plasmid (h): sc-43281-SH, CLIP-170 shRNA Plasmid (m): sc-43282-SH, CLIP-170 shRNA (h) Lentiviral Particles: sc-43281-V and CLIP-170 shRNA (m) Lentiviral Particles: sc-43282-V.

Molecular Weight of CLIP-170: 170 kDa.

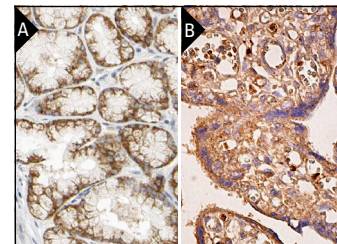
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



CLIP-170 (F-3) HRP: sc-28325 HRP. Direct western blot analysis of CLIP-170 expression in JAR (A), HUV-EC-C (B), HeLa (C), c4 (D), KNRK (E) and AMJ2-C8 (F) whole cell lysates.



CLIP-170 (F-3): sc-28325. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

## SELECT PRODUCT CITATIONS

- Lewkowicz, E., et al. 2008. The microtubule-binding protein CLIP-170 coordinates mDia1 and Actin reorganization during CR3-mediated phagocytosis. *J. Cell Biol.* 183: 1287-1298.
- Liu, C., et al. 2015. A dynein independent role of Tctex-1 at the kinetochore. *Cell Cycle* 14: 1379-1388.
- Wei, J., et al. 2017. Noncentrosomal microtubules regulate autophagosome transport through CAMSAP2-EB1 cross-talk. *FEBS Lett.* 591: 2379-2393.
- Jakka, P., et al. 2018. Cytoplasmic linker protein CLIP-170 negatively regulates TLR4 signaling by targeting the TLR adaptor protein TIRAP. *J. Immunol.* 200: 704-714.
- Chanez, B., et al. 2021. EB1 restricts breast cancer cell invadopodia formation and matrix proteolysis via FAK. *Cells* 10: 388.
- Chen, A., et al. 2021. Inhibition of polar Actin assembly by astral microtubules is required for cytokinesis. *Nat. Commun.* 12: 2409.
- Dunleavy, J.E.M., et al. 2021. KATNB1 is a master regulator of multiple katanin enzymes in male meiosis and haploid germ cell development. *Development* 148: dev199922.
- Salomon, A.K., et al. 2022. Desmin intermediate filaments and Tubulin deetyrosination stabilize growing microtubules in the cardiomyocyte. *Basic Res. Cardiol.* 117: 53.
- Bradley, D., et al. 2024. The substrate quality of CK2 target sites has a determinant role on their function and evolution. *Cell Syst.* 15: 544-562.e8.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.