

CLIP-170 (m): 293T Lysate: sc-119308

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.

REFERENCES

1. Pierre, P., Scheel, J., Rickard, J.E. and Kreis, T.E. 1992. CLIP-170 links endocytic vesicles to microtubules. *Cell* 70: 887-900.
2. Delabie, J., Bilbe, G., Brüggem, J., Van Leuven, F. and De Wolf-Peeters, C. 1993. Restin in Hodgkin's disease and anaplastic large cell lymphoma. *Leuk. Lymphoma* 12: 21-26.
3. Perez, F., Diamantopoulos, G.S., Stalder, R. and Kreis, T.E. 1999. CLIP-170 highlights growing microtubule ends *in vivo*. *Cell* 96: 517-527.
4. Sahin, U., Neumann, F., Tureci, O., Schmits, R., Perez, F. and Pfreundschuh, M. 2002. Hodgkin and Reed-Sternberg cell-associated auto-antigen 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. *Blood* 100: 4139-4145.
5. Komarova, Y.A., Akhmanova, A.S., Kojima, S., Galjart, N. and Borisy, G.G. 2002. Cytoplasmic linker proteins promote microtubule rescue *in vivo*. *J. Cell Biol.* 159: 589-599.
6. Goodson, H.V., Skube, S.B., Stalder, R., Valetti, C., Kreis, T.E., Morrison, E.E. and Schroer, T.A. 2003. CLIP-170 interacts with Dynactin complex and the APC-binding protein EB1 by different mechanisms. *Cell Motil. Cytoskeleton* 55: 156-173.

CHROMOSOMAL LOCATION

Genetic locus: Clip1 (mouse) mapping to 5 F.

PRODUCT

CLIP-170 (m): 293T Lysate represents a lysate of mouse CLIP-170 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

CLIP-170 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CLIP-170 antibodies. Recommended use: 10-20 µl per lane.

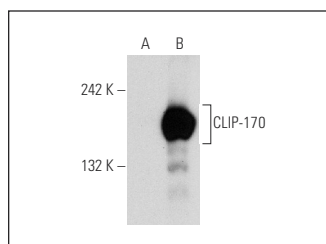
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CLIP-170 (E-8): sc-166801 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CLIP-170 expression in CLIP-170 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CLIP-170 (E-8): sc-166801. Western blot analysis of CLIP-170 expression in non-transfected: sc-117752 (A) and mouse CLIP-170 transfected: sc-119308 (B) 293T whole cell lysates.

RESEARCH USE

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