

CLP36 (m): 293T Lysate: sc-119315

BACKGROUND

CLP36, also known as PDLIM1, CLIM1 or Elfin, is a 329 amino acid cytoplasmic protein that associates with Actin stress fibers at the cytoskeleton. Expressed at high levels in skeletal muscle and heart and at lower levels in colon, small intestine, spleen, lung, placenta, kidney, liver, thymus and pancreas, CLP36 functions as a cytoskeletal protein that is thought to act as an adaptor, bringing target proteins to the cytoskeleton. Specifically, CLP36 interacts with Clik1 (α kinase) and recruits Clik1 to α -actinin-1, thereby facilitating the association of Clik1 with Actin stress fibers. CLP36 contains one PDZ domain and one LIM zinc-binding domain through which it conveys its protein-protein binding capabilities. Human CLP36 shares 88% sequence similarity with its rat counterpart, suggesting a conserved function between species.

REFERENCES

1. Bauer, K., et al. 2000. Human CLP36, a PDZ-domain and LIM-domain protein, binds to α -actinin-1 and associates with Actin filaments and stress fibers in activated platelets and endothelial cells. *Blood* 96: 4236-4245.
2. Vallenius, T., et al. 2000. CLP-36 PDZ-LIM protein associates with nonmuscle α -actinin-1 and α -actinin-4. *J. Biol. Chem.* 275: 11100-11105.
3. Kotaka, M., et al. 2000. Interaction of hCLIM1, an enigma family protein, with α -actinin 2. *J. Cell. Biochem.* 78: 558-565.
4. Vallenius, T. and Makela, T.P. 2002. Clik1: a novel kinase targeted to Actin stress fibers by the CLP-36 PDZ-LIM protein. *J. Cell Sci.* 115: 2067-2073.
5. Mieke, U., et al. 2006. Expression of the Actin stress fiber-associated protein CLP36 in the human placenta. *Histochem. Cell Biol.* 126: 465-471.
6. Tran, Y.H., et al. 2006. Spliced isoforms of LIM-domain-binding protein (CLIM/NLI/Ldb) lacking the LIM-interaction domain. *J. Biochem.* 140: 105-119.
7. Kashani, A.H., et al. 2006. Calcium activation of the LMO4 transcription complex and its role in the patterning of thalamocortical connections. *J. Neurosci.* 26: 8398-8408.
8. Pluskalová, M., et al. 2006. Photodynamic treatment (ALA-PDT) suppresses the expression of the oncogenic Bcr-Abl kinase and affects the cytoskeleton organization in K562 cells. *J. Photochem. Photobiol. B* 83: 205-212.

CHROMOSOMAL LOCATION

Genetic locus: Pdlim1 (mouse) mapping to 19 C3.

PRODUCT

CLP36 (m): 293T Lysate represents a lysate of mouse CLP36 transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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.

APPLICATIONS

CLP36 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CLP36 antibodies. Recommended use: 10-20 μ l per lane.

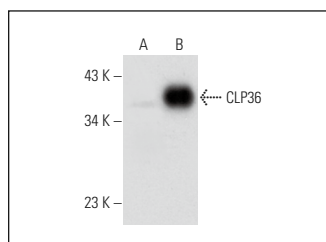
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CLP36 (H-8): sc-398899 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CLP36 expression in CLP36 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

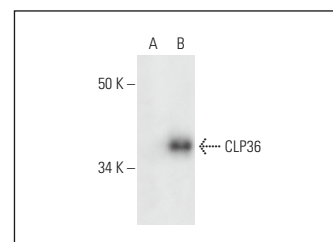
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



CLP36 (H-8): sc-398899. Western blot analysis of CLP36 expression in non-transfected: sc-117752 (A) and mouse CLP36 transfected: sc-119315 (B) 293T whole cell lysates.



CLP36 (H-11): sc-374077. Western blot analysis of CLP36 expression in non-transfected: sc-117752 (A) and mouse CLP36 transfected: sc-119315 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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