SANTA CRUZ BIOTECHNOLOGY, INC.

CLP36 (B-9): sc-393084

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. CLP36 PDZ-LIM protein associates with nonmuscle α-actinin-1 and α-actinin-4. J. Biol. Chem. 275: 11100-11105.

CHROMOSOMAL LOCATION

Genetic locus: PDLIM1 (human) mapping to 10q23.33; Pdlim1 (mouse) mapping to 19 C3.

SOURCE

CLP36 (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 84-123 within an internal region of CLP36 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CLP36 (B-9) is available conjugated to agarose (sc-393084 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393084 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393084 PE), fluorescein (sc-393084 FITC), Alexa Fluor® 488 (sc-393084 AF488), Alexa Fluor® 546 (sc-393084 AF546), Alexa Fluor® 594 (sc-393084 AF594) or Alexa Fluor® 647 (sc-393084 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393084 AF680) or Alexa Fluor® 790 (sc-393084 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393084 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

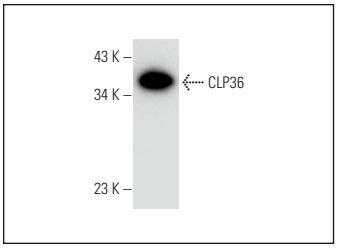
CLP36 (B-9) is recommended for detection of CLP36 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 CLP36 siRNA (h): sc-72927, CLP36 siRNA (m): sc-72928, CLP36 shRNA Plasmid (h): sc-72927-SH, CLP36 shRNA Plasmid (m): sc-72928-SH, CLP36 shRNA (h) Lentiviral Particles: sc-72927-V and CLP36 shRNA (m) Lentiviral Particles: sc-72928-V.

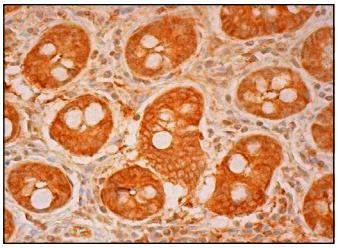
Molecular Weight of CLP36: 36 kDa.

Positive Controls: L6 whole cell lysate: sc-364196.

DATA



CLP36 (B-9): sc-393084. Western blot analysis of CLP36 expression in L6 whole cell lysate.



CLP36 (B-9): sc-393084. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells and endothelial cells.

SELECT PRODUCT CITATIONS

1. Lu, Y., et al. 2022. CLP36 promotes p53 deficient sarcoma progression through suppression of atrophin-1 interacting protein-4 (AIP-4)-dependent degradation of YAP1. Theranostics 12: 5051-5068.
2. Shen, X., et al. 2024. Identification of PDLIM1 as a glioblastoma stem cell marker driving tumorigenesis and chemoresistance. Cell Death Discov. 10: 469.

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.