

CLIM-1/2 (A-3): sc-376030

BACKGROUND

CLIM-1/2 (LIM domain-binding factor-2, LDB1, CLP36, ELFIN, CLP-36, enigma homolog) is a LIM domain-containing protein. LIM domain-containing proteins are capable of binding to a variety of transcription factors. They are likely to function as enhancers, to bring together diverse transcription factors and form higher order activation complexes, or to block formation of such complexes. Human CLIM-1 is a cytoplasmic protein. CLIM-1 northern blot analysis reveals expression of an approximately 2.0-kb transcript most abundant in heart and skeletal muscle. CLIM-1 interacts with the C-terminal EF hand region of α -actinin-2 through a LIM domain. CLIM-1 localizes to actin stress fibers in non-muscle cells and associates with α -actinin via its PDZ-domain.

REFERENCES

1. Sugihara, T.M., et al. 1998. Mouse deformed epidermal autoregulatory factor 1 recruits a LIM domain factor, LMO-4, and CLIM coregulators. *Proc Natl. Acad. Sci. USA* 95: 15418-15423.
2. Cassata, G., et al. 2000. The *Caenorhabditis elegans* Ldb/NLI/Clim orthologue ldb-1 is required for neuronal function. *Dev. Biol.* 226: 45-56.
3. 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.
4. 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.
5. Becker, T., et al. 2002. Multiple functions of LIM domain-binding CLIM/NLI/Ldb cofactors during zebrafish development. *Mech. Dev.* 117: 75-85.
6. Vallenius, T., et al. 2002. Clik1: a novel kinase targeted to Actin stress fibers by the CLP-36 PDZ-LIM protein. *J. Cell Sci.* 115: 2067-2073.

CHROMOSOMAL LOCATION

Genetic locus: LDB2 (human) mapping to 4p15.32, LDB1 (human) mapping to 10q24.32; Ldb2 (mouse) mapping to 5 B3, Ldb1 (mouse) mapping to 19 C3.

SOURCE

CLIM-1/2 (A-3) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of CLIM-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376030 X, 200 μ g/0.1 ml.

CLIM-1/2 (A-3) is available conjugated to agarose (sc-376030 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376030 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376030 PE), fluorescein (sc-376030 FITC), Alexa Fluor® 488 (sc-376030 AF488), Alexa Fluor® 546 (sc-376030 AF546), Alexa Fluor® 594 (sc-376030 AF594) or Alexa Fluor® 647 (sc-376030 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376030 AF680) or Alexa Fluor® 790 (sc-376030 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CLIM-1/2 (A-3) is recommended for detection of CLIM-1 and CLIM-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CLIM-1/2 (A-3) is also recommended for detection of CLIM-1 and CLIM-2 in additional species, including equine and canine.

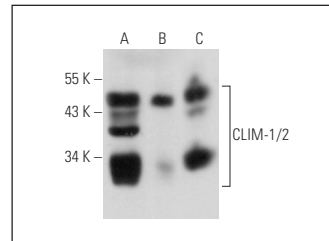
CLIM-1/2 (A-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CLIM-1: 36 kDa.

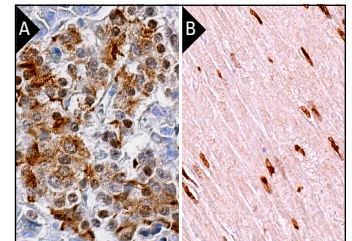
Molecular Weight of CLIM-2: 46 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat nuclear extract: sc-2132 or IMR-32 nuclear extract: sc-2148.

DATA



CLIM-1/2 (A-3): sc-376030. Western blot analysis of CLIM-1/2 expression in IMR-32 (A) and Jurkat (B) nuclear extracts and CCRF-CEM whole cell lysate (C).



CLIM-1/2 (A-3): sc-376030. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of Islets of Langerhans (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing nuclear staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

1. Layer, J.H., et al. 2020. LDB1 enforces stability on direct and indirect oncoprotein partners in leukemia. *Mol. Cell. Biol.* 40: e00652-19.

STORAGE

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

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.