SANTA CRUZ BIOTECHNOLOGY, INC.

CLIM-2 (N-18): sc-11198

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The LIM-only (LMO) proteins, LMO1 and LMO2, are nuclear factors that are characterized by a conserved LIM domain. The LIM domain consists of a cysteine-rich zinc-binding motif that is present in a variety of transcription factors, including the LIM homeobox (LHX) proteins expressed in the central nervous system and involved in cell differentiation. LMO1 and LMO2 are expressed in the adult CNS in a cell type-specific manner, where they are differentially regulated by neuronal activity and are involved in regulating the cellular differentiated phenotype of neurons. LMO2 lacks a specific DNA-binding homeobox domain but rather assembles into transcriptional regulatory complexes to mediate gene expression by interacting with the widely expressed nuclear LIM interactor (NLI). NLI, known also as CLIM-1, and the related protein CLIM-2, facilitate the formation of heteromeric LIM complexes and also enhance the nuclear retention of LIM proteins. LMO2 and the related protein LMO4 are expressed in thymic precursor cells. LMO4 is also expressed in mature T cells, cranial neural crest cells, somite, dorsal limb bud mesenchyme, motor neurons and Schwann cell progenitors.

CHROMOSOMAL LOCATION

Genetic locus: LDB1 (human) mapping to 10q24.32; Ldb1 (mouse) mapping to 19 C3.

SOURCE

CLIM-2 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CLIM-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG 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-11198 X, 100 µg/0.1 ml.

Blocking peptide available for competition studies, sc-11198 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CLIM-2 (N-18) is recommended for detection of CLIM-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). CLIM-2 (N-18) is also recommended for detection of CLIM-2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for CLIM-2 siRNA (h): sc-35072, CLIM-2 siRNA (m): sc-35073, CLIM-2 shRNA Plasmid (h): sc-35072-SH, CLIM-2 shRNA Plasmid (m): sc-35073-SH, CLIM-2 shRNA (h) Lentiviral Particles: sc-35072-V and CLIM-2 shRNA (m) Lentiviral Particles: sc-35073-V.

CLIM-2 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

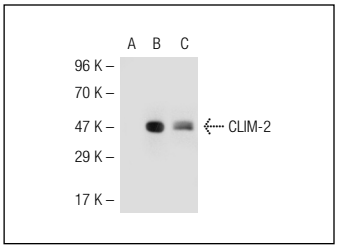
Molecular Weight of CLIM-2: 46 kDa.

Positive Controls: CLIM-2 (m): 293T Lysate: sc-119307, CCRF-CEM cell lysate: sc-2225 or IMR-32 cell lysate: sc-2409.

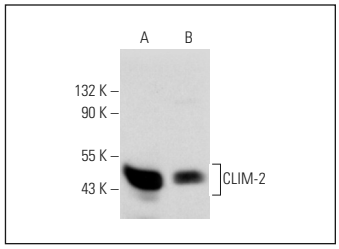
STORAGE

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

DATA



CLIM-2 (N-18): sc-11198. Western blot analysis of CLIM-2 expression in non-transfected 293T: sc-117752 (**A**), mouse CLIM-2 transfected 293T: sc-119307 (**B**) and CCRF-CEM (**C**) whole cell lysates.



CLIM-2 (N-18): sc-11198. Western blot analysis of CLIM-2 expression in IMR-32 (**A**) and CCRF-CEM (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Hiratani, I., et al. 2003. Selective degradation of excess Ldb1 by Rnf12/RLIM confers proper Ldb1 expression levels and Xlim-1/Ldb1 stoichiometry in *Xenopus* organizer functions. Development 130: 4161-4175.
2. Tripic, T., et al. 2009. SCL and associated proteins distinguish active from repressive GATA transcription factor complexes. Blood 113: 2191-2201.
3. Song, S.H., et al. 2010. Multiple functions of Ldb1 required for β-globin activation during erythroid differentiation. Blood 116: 2356-2364.
4. Anguita, E., et al. 2010. GFI1B controls its own expression binding to multiple sites. Haematologica 95: 36-46.
5. Kim, S., et al. 2012. Chromatin structure of the LCR in the human β-globin locus transcribing the adult δ- and β-globin genes. Int. J. Biochem. Cell Biol. 44: 505-513.
6. Song, S.H., et al. 2012. Ldb1 regulates carbonic anhydrase 1 during erythroid differentiation. Biochim. Biophys. Acta 1819: 885-891.
7. Mylona, A., et al. 2013. Genome-wide analysis shows that Ldb1 controls essential hematopoietic genes/pathways in mouse early development and reveals novel players in hematopoiesis. Blood 121: 2902-2913.
8. Sun, X.J., et al. 2013. A stable transcription factor complex nucleated by oligomeric AML1-ETO controls leukaemogenesis. Nature 500: 93-97.

RESEARCH USE

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