## SANTA CRUZ BIOTECHNOLOGY, INC.

# CLIM-1 (H-15): sc-11196



#### 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.

## REFERENCES

- Hinks, G.L., et al. 1997. Expression of LIM protein genes LMO1, LMO2, and LMO3 in adult mouse hippocampus and other forebrain regions: differential regulation by seizure activity. J. Neurosci. 17: 5549-5559.
- Grutz, G., et al. 1998. Identification of the LMO4 gene encoding an interaction partner of the LIM-binding protein LDB1/NLI1: a candidate for displacement by LMO proteins in T cell acute leukaemia. Oncogene 17: 2799-2803.
- Valge-Archer, V., et al. 1998. The LMO1 AND LDB1 proteins interact in human T cell acute leukaemia with the chromosomal translocation t(11;14)(p15;q11). Oncogene 17: 3199-3202.
- Semina, E.V., et al. 1998. Cloning and chromosomal localization of two novel human genes encoding LIM-domain binding factors CLIM1 and CLIM2/LDB1/NLI. Mamm. Genome 9: 921-924.
- Kenny, D.A., et al. 1998. Identification and characterization of LMO4, an LMO gene with a novel pattern of expression during embryogenesis. Proc. Natl. Acad. Sci. USA 95: 11257-11262.
- Tse, E., et al 1999. Characterization of the LMO4 gene encoding a LIM-only protein: genomic organization and comparative chromosomal mapping. Mamm. Genome 10: 1089-1094.
- Chervinsky, D.S., et al. 1999. Disordered T-cell development and T-cell malignancies in SCL LMO1 double-transgenic mice: parallels with E2Adeficient mice. Mol. Cell. Biol. 19: 5025-5035.

#### CHROMOSOMAL LOCATIONS

Genetic locus: LDB2 (human) mapping to 4p15.32; Ldb2 (mouse) mapping to 5 B3.

#### SOURCE

CLIM-1 (H-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CLIM-1 of human origin.

#### PRODUCT

Each vial contains 200  $\mu$ g lgG 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-11196 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-11196 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

CLIM-1 (H-15) is recommended for detection of CLIM-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-1 (H-15) is also recommended for detection of CLIM-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CLIM-1 siRNA (h): sc-38023, CLIM-1 siRNA (m): sc-38024, CLIM-1 shRNA Plasmid (h): sc-38023-SH, CLIM-1 shRNA Plasmid (m): sc-38024-SH, CLIM-1 shRNA (h) Lentiviral Particles: sc-38023-V and CLIM-1 shRNA (m) Lentiviral Particles: sc-38024-V.

CLIM-1 (H-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CLIM-1: 36 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2783 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### 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.

## MONOS Satisfation Guaranteed

Try CLIM-1/2 (A-3): sc-376030 or CLIM-1/2 (A-6): sc-376031, our highly recommended monoclonal alternatives to CLIM-1 (H-15).