

LMO1 (790C2a): sc-130628

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

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3. 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.
4. 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.
5. 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.
6. 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.
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CHROMOSOMAL LOCATION

Genetic locus: LMO1 (human) mapping to 11p15.4.

SOURCE

LMO1 (790C2a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminus of LMO1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml PBS with < 0.1% sodium azide and 1.0% gelatin.

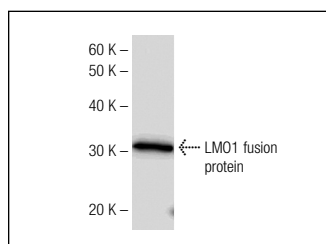
APPLICATIONS

LMO1 (790C2a) is recommended for detection of LMO1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for LMO1 siRNA (h): sc-38025, LMO1 shRNA Plasmid (h): sc-38025-SH and LMO1 shRNA (h) Lentiviral Particles: sc-38025-V.

Molecular Weight of LMO1: 16 kDa.

DATA



LMO1 (790C2a): sc-130628. Western blot analysis of human recombinant LMO1 fusion protein.

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.