**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: LMO2 (human) mapping to 11p13; Lmo2 (mouse) mapping to 2 E2.

**SOURCE**

LMO2 (1A9-1) is a mouse monoclonal antibody raised against recombinant LMO2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LMO2 (1A9-1) is available conjugated to agarose (sc-65736 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65736 HRP), 200 µg/ml, for WB, (RGB), IF, IHOP and FCM; and to either phycoerythrin (sc-65736PE), fluorescein (sc-65736 FITC), Alexa Fluor® 488 (sc-65736 AF488), Alexa Fluor® 546 (sc-65736 AF546), Alexa Fluor® 594 (sc-65736 AF594) or Alexa Fluor® 647 (sc-65736 AF647), 200 µg/ml, for WB (RGB), IF, IHOP and FCM; and to either Alexa Fluor® 680 (sc-65736 AF680) or Alexa Fluor® 790 (sc-65736 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

LMO2 (1A9-1) is recommended for detection of LMO2 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of LMO2: 24 kDa.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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