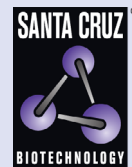


# MIXL1 (E-10): sc-518255



The Power to Question.

## BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and in the control of gene expression. MIXL1 (Mix1 homeobox-like 1), also known as MIXL, is a 232 amino acid protein that localizes to the nucleus and contains one homeobox DNA-binding domain. Expressed in lymph tissues, MIXL1 functions as a transcription factor that plays an essential role in axial mesendoderm morphogenesis and endoderm formation and is also required for cellular differentiation during blood development. Additionally, MIXL1 is involved in maturation of heart and gut tissue during embryogenesis and may also act as a negative regulator of brachyury expression. Overexpression of MIXL1 is associated with non-Hodgkin and Hodgkin lymphomas, suggesting a role in carcinogenesis.

## REFERENCES

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- Sahr, K., et al. 2002. Structure, upstream promoter region, and functional domains of a mouse and human Mix paired-like homeobox gene. *Gene* 291: 135-147.
- Hart, A.H., et al. 2005. Transcriptional regulation of the homeobox gene MIXL1 by TGF- $\beta$  and FoxH1. *Biochem. Biophys. Res. Commun.* 333: 1361-1369.
- Online Mendelian Inheritance in Man, OMIM<sup>TM</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609852. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Metcalfe, D., et al. 2007. The preleukemic state of mice reconstituted with MIXL1-transduced marrow cells. *Proc. Natl. Acad. Sci. USA* 104: 20013-20018.

## CHROMOSOMAL LOCATION

Genetic locus: MIXL1 (human) mapping to 1q42.12.

## SOURCE

MIXL1 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 100-121 of MIXL1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\kappa$  light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MIXL1 (E-10) is available conjugated to agarose (sc-518255 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518255 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518255 PE), fluorescein (sc-518255 FITC), Alexa Fluor<sup>®</sup> 488 (sc-518255 AF488), Alexa Fluor<sup>®</sup> 546 (sc-518255 AF546), Alexa Fluor<sup>®</sup> 594 (sc-518255 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-518255 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-518255 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-518255 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

MIXL1 (E-10) is recommended for detection of MIXL1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

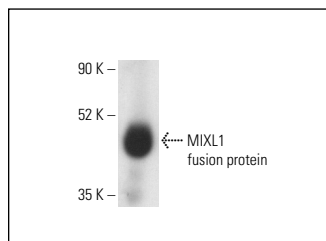
Suitable for use as control antibody for MIXL1 siRNA (h): sc-88374, MIXL1 shRNA Plasmid (h): sc-88374-SH and MIXL1 shRNA (h) Lentiviral Particles: sc-88374-V.

Molecular Weight of MIXL1: 25 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



MIXL1 (E-10): sc-518255. Western blot analysis of human recombinant MIXL1 fusion protein. Detection reagent used: m-IgG $\kappa$  BP-HRP: sc-525408.

## 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](http://www.scbt.com) for detailed protocols and support products.