

Meis2 (N-17): sc-10600

BACKGROUND

Hox, Pbx and Meis families of transcription factors form heteromeric complexes and bind DNA through specific homeobox domains. Hox proteins are involved in regulating tissue patterning during development; they are also expressed in lineage- and stage-specific patterns during adult hematopoietic differentiation and in leukemias. The Hox proteins, which include paralog groups 1 to 10, have a low intrinsic binding affinity for DNA and are instead associated into cooperative DNA binding complexes with Pbx or the Pbx-related Meis proteins, which result in an enhanced Hox-DNA binding affinity and an increased selectivity for the binding site. Both Meis1 and 2 (also known as Meis-related gene 1) are members of the TALE (three amino acid loop extension) family of homeodomain-containing proteins. In addition to binding with Hox proteins, Meis1 also forms heterodimers with the ubiquitously expressed Pbx proteins, including Pbx 1, Pbx 2 and Pbx 3, and these complexes contain distinct DNA-binding specificities. Like Hox and Pbx proteins, Meis1 is implicated in oncogenesis as it is overexpressed as a result of adjacent retroviral insertion in BHL-2 myeloid leukemias. Two Meis-related proteins, Meis2 and Meis3 (also designated MRG1 and MRG2, respectively), possess largely similar sequence identity with Meis1 and are expressed in normal tissues and myeloid leukemias. In the pancreas, Meis2 preferentially associates with Pbx 1, and together they associate with the pancreas-specific homeodomain factor PDX-1 to repress PDX-1-induced transcriptional activation.

CHROMOSOMAL LOCATION

Genetic locus: MEIS2 (human) mapping to 15q14; Meis2 (mouse) mapping to 2 E4.

SOURCE

Meis2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Meis2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10600 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10600 X, 200 µg/0.1 ml.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

Meis2 (N-17) is recommended for detection of Meis2 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).

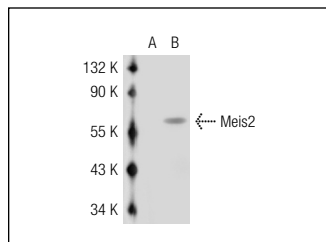
Meis2 (N-17) is also recommended for detection of Meis2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Meis2 siRNA (h): sc-38794, Meis2 siRNA (m): sc-38795, Meis2 shRNA Plasmid (h): sc-38794-SH, Meis2 shRNA Plasmid (m): sc-38795-SH, Meis2 shRNA (h) Lentiviral Particles: sc-38794-V and Meis2 shRNA (m) Lentiviral Particles: sc-38795-V.

Meis2 (N-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Meis2: 52 kDa.

DATA



Meis2 (N-17): sc-10600. Western blot analysis of Meis2 expression in non-transfected: sc-117752 (A) and human Meis2 transfected: sc-116143 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Sarno, J.L., et al. 2005. HoxA10, Pbx 2, and Meis1 protein expression in the human endometrium: formation of multimeric complexes on HoxA10 target genes. *J. Clin. Endocrinol. Metab.* 90: 522-528.
- Crijns, A.P., et al. 2007. MEIS and PBX homeobox proteins in ovarian cancer. *Eur. J. Cancer* 43: 2495-2505.
- Vitobello, A., et al. 2011. Hox and Pbx factors control retinoic acid synthesis during hindbrain segmentation. *Dev. Cell* 20: 469-482.
- Ferretti, E., et al. 2011. A conserved Pbx-Wnt-p63-Irf6 regulatory module controls face morphogenesis by promoting epithelial apoptosis. *Dev. Cell* 21: 627-641.

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Try **Meis2 (H-10): sc-515470** or **Meis2 (63-T): sc-81986**, our highly recommended monoclonal alternatives to Meis2 (N-17).