

#### HOXB4 Antibody

Purified Mouse Monoclonal Antibody Catalog # AO1928a

# Specification

# HOXB4 Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW **Description**  E, WB, IHC <u>P17483</u> Human Mouse Monoclonal IgG2a 27.6kDa KDa

This gene is a member of the Antp homeobox family and encodes a nuclear protein with a homeobox DNA-binding domain. It is included in a cluster of homeobox B genes located on chromosome 17. The encoded protein functions as a sequence-specific transcription factor that is involved in development. Intracellular or ectopic expression of this protein expands hematopoietic stem and progenitor cells in vivo and in vitro, making it a potential candidate for therapeutic stem cell expansion.

Immunogen Purified recombinant fragment of human HOXB4 (AA: 16-251) expressed in E. Coli.

**Formulation** Purified antibody in PBS with 0.05% sodium azide.

# HOXB4 Antibody - Additional Information

Gene ID 3214

Other Names Homeobox protein Hox-B4, Homeobox protein Hox-2.6, Homeobox protein Hox-2F, HOXB4, HOX2F

Dilution E~~1/10000 WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** HOXB4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **HOXB4 Antibody - Protein Information**



Name HOXB4

Synonyms HOX2F

Function

Sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis.

**Cellular Location** Nucleus.

# HOXB4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>





Figure 1: Western blot analysis using HOXB4 mAb against human HOXB4 (AA: 16-251) recombinant protein. (Expected MW is 51.9 kDa)



Figure 2: Western blot analysis using HOXB4 mAb against HEK293 (1) and HOXB4 (AA: 16-251)-hlgGFc transfected HEK293 (2) cell lysate.



Figure 3: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using HOXB4 mouse mAb with DAB staining.





Figure 4: Immunohistochemical analysis of paraffin-embedded colon cancer tissues using HOXB4 mouse mAb with DAB staining.

### HOXB4 Antibody - Background

The protein encoded by this gene is an isozyme of very long-chain acyl-CoA synthetase (VLCS). It is capable of activating very long-chain fatty-acids containing 24- and 26-carbons. It is expressed in liver and associated with endoplasmic reticulum but not with peroxisomes. Its primary role is in fatty acid elongation or complex lipid synthesis rather than in degradation. This gene has a mouse ortholog. ; ;

### HOXB4 Antibody - References

1. Blood. 2012 May 10;119(19):e139-47. 2. J Cancer Res Clin Oncol. 2012 Feb;138(2):293-300.