

**ZBTB7B Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1364a**

**Specification**

**ZBTB7B Antibody - Product Information**

Application	<b>WB, IHC, IF</b>
Primary Accession	<a href="#">O15156</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>58kDa KDa</b>

**Description**

ZBTB7B is a transcription regulator that acts as a key regulator of lineage commitment of immature T-cell precursors. It is necessary and sufficient for commitment of CD4 lineage, while its absence causes CD8 commitment. Development of immature T-cell precursors (thymocytes) to either the CD4 helper or CD8 killer T-cell lineages correlates precisely with their T-cell receptor specificity for major histocompatibility complex class II or class I molecules, respectively. ZBTB7B is a transcriptional repressor of the collagen COL1A1 and COL1A2 genes. It may also function as a repressor of fibronectin and possibly other extracellular matrix genes.

**Immunogen**

Purified recombinant fragment of human ZBTB7B expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**ZBTB7B Antibody - Additional Information**

**Gene ID** 51043

**Other Names**

Zinc finger and BTB domain-containing protein 7B, Krueppel-related zinc finger protein cKrox, hcKrox, T-helper-inducing POZ/Krueppel-like factor, Zinc finger and BTB domain-containing protein 15, Zinc finger protein 67 homolog, Zfp-67, Zinc

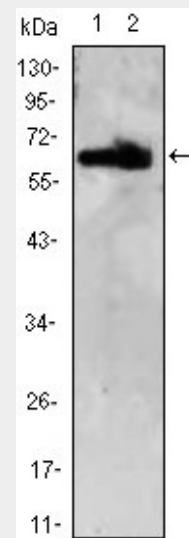


Figure 1: Western blot analysis using ZBTB7B mAb against HEK293 (1,2) cell lysate.

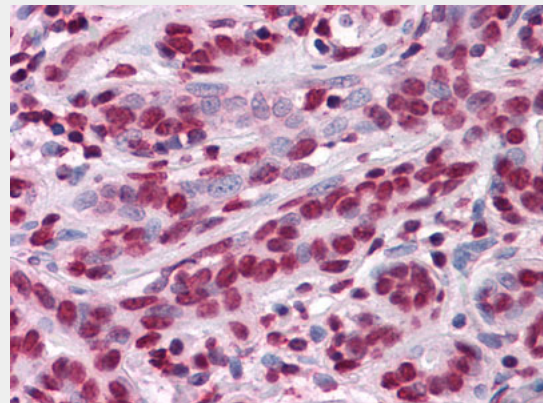


Figure 2: Immunohistochemical analysis of paraffin-embedded human Breast tissues using anti-ZBTB7B mouse mAb

finger protein 857B, Zinc finger protein Th-POK, ZBTB7B, ZBTB15, ZFP67, ZNF857B

#### Dilution

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

IF~~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

ZBTB7B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### ZBTB7B Antibody - Protein Information

**Name** ZBTB7B ([HGNC:18668](#))

**Synonyms** ZBTB15, ZFP67, ZNF857B

#### Function

Transcription regulator that acts as a key regulator of lineage commitment of immature T-cell precursors. Exerts distinct biological functions in the mammary epithelial cells and T cells in a tissue-specific manner. Necessary and sufficient for commitment of CD4 lineage, while its absence causes CD8 commitment. Development of immature T-cell precursors (thymocytes) to either the CD4 helper or CD8 killer T-cell lineages correlates precisely with their T-cell receptor specificity for major histocompatibility complex class II or class I molecules, respectively. Cross-antagonism between ZBTB7B and CBF complexes are determinative to CD4 versus CD8 cell fate decision. Suppresses RUNX3 expression and imposes CD4+ lineage fate by inducing the SOCS suppressors of cytokine signaling. induces, as a transcriptional activator, SOCS genes expression which represses RUNX3 expression and promotes the CD4+ lineage fate. During CD4 lineage commitment, associates with multiple sites at the CD8 locus, acting as a negative regulator of the CD8 promoter and enhancers by epigenetic silencing through the recruitment of class II histone deacetylases, such as HDAC4 and HDAC5, to these loci. Regulates the

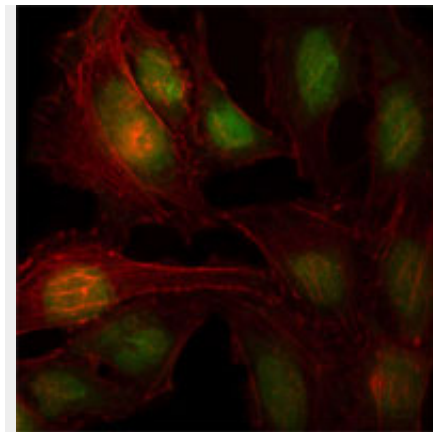


Figure 3: Immunofluorescence analysis of HeLa cells using ZBTB7B mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin

#### ZBTB7B Antibody - References

1. Proc Natl Acad Sci U S A. 1994 Sep 27;91(20):9372-6.
2. J Biol Chem. 2000 Sep 1;275(35):27421-38.
3. J Cell Biochem. 2009 Aug 15;107(6):1037-45. Review.

development of IL17-producing CD1d-restricted natural killer (NK) T cells. Also functions as an important metabolic regulator in the lactating mammary glands. Critical feed-forward regulator of insulin signaling in mammary gland lactation, directly regulates expression of insulin receptor substrate-1 (IRS-1) and insulin-induced Akt-mTOR-SREBP signaling (By similarity). Transcriptional repressor of the collagen COL1A1 and COL1A2 genes. May also function as a repressor of fibronectin and possibly other extracellular matrix genes (PubMed:<a href="http://www.uniprot.org/citations/9370309" target="\_blank">9370309</a>). Potent driver of brown fat development, thermogenesis and cold-induced beige fat formation. Recruits the brown fat lncRNA 1 (Blnc1):HNRNPU ribonucleoprotein complex to activate thermogenic gene expression in brown and beige adipocytes (By similarity).

**Cellular Location**

Nucleus

{ECO:0000250|UniProtKB:Q64321}.

**ZBTB7B Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)