

**ZBTB7B Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6370c**

### Specification

#### ZBTB7B Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	<a href="#">O15156</a>
Other Accession	<a href="#">Q64321</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	58027
Antigen Region	181-210

#### ZBTB7B Antibody (Center) - 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 finger protein 857B, Zinc finger protein Th-POK, ZBTB7B, ZBTB15, ZFP67, ZNF857B

##### Target/Specificity

This ZBTB7B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 181-210 amino acids from the Central region of human ZBTB7B.

##### Dilution

WB~~1:1000

IHC-P~~1:50

E~~Use at an assay dependent concentration.

##### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

##### Storage

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

##### Precautions

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

#### ZBTB7B Antibody (Center) - 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 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:[9370309](#)). Potent driver of brown fat development, thermogenesis and cold-induced beige fat formation. Recruits the brown fat lncRNA 1 (Bln1c1):HNRNPU ribonucleoprotein complex to activate thermogenic gene expression in brown and beige adipocytes (By similarity).

#### **Cellular Location**

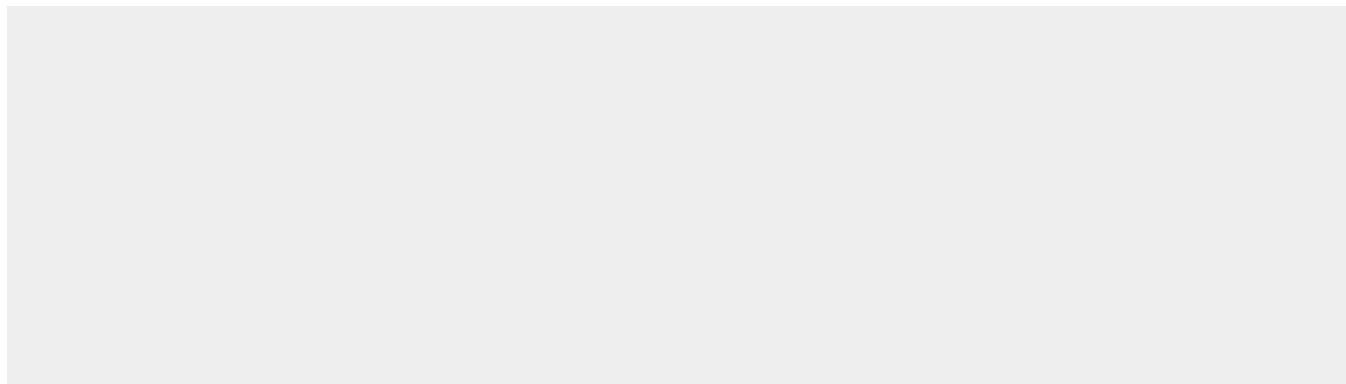
Nucleus {ECO:0000250|UniProtKB:Q64321}.

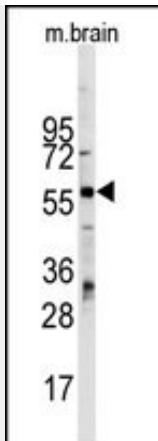
#### **ZBTB7B Antibody (Center) - Protocols**

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

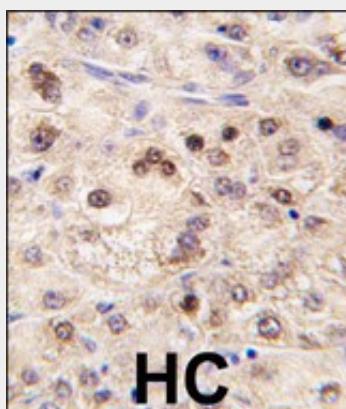
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **ZBTB7B Antibody (Center) - Images**





Western blot analysis of ZBTB7B Antibody (Center) Pab (Cat.#AP6370c) in mouse brain tissue lysates (35ug/lane). ZBTB7B (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with ZBTB7B antibody (Center)(Cat.#AP6370c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **ZBTB7B Antibody (Center) - Background**

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.

#### **ZBTB7B Antibody (Center) - References**

- Galera,P., Proc. Natl. Acad. Sci. U.S.A. 91 (20), 9372-9376 (1994)
- Widom,R.L., Gene 198 (1-2), 407-420 (1997)
- Heegaard,A.M., J. Bone Miner. Res. 12 (12), 2050-2060 (1997)
- Widom,R.L., Matrix Biol. 20 (7), 451-462 (2001)