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ZBTB7B / HcKrox Antibody (clone 7C12)

Mouse Monoclonal Antibody
Catalog # ALS13187

Specification

ZBTB7B / HcKrox Antibody (clone 7C12) - Product Information

Application	**IF, IHC**
Primary Accession	O15156
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**58kDa KDa**

ZBTB7B / HcKrox Antibody (clone 7C12) - 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
Human ZBTB7B

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
ZBTB7B / HcKrox Antibody (clone 7C12) is for research use only and not for use in diagnostic or therapeutic procedures.

ZBTB7B / HcKrox Antibody (clone 7C12) - 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 naural 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 (Blnc1):HNRNPU ribonucleoprotein complex to activate thermogenic gene expression in brown and beige adipocytes (By similarity).

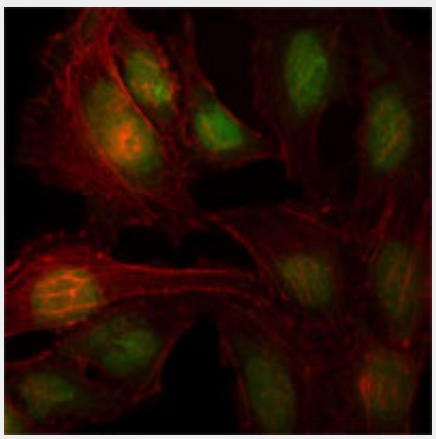
Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q64321}.

ZBTB7B / HcKrox Antibody (clone 7C12) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ZBTB7B / HcKrox Antibody (clone 7C12) - Images



Immunofluorescence of HeLa cells using ZBTB7B mouse monoclonal antibody (green).

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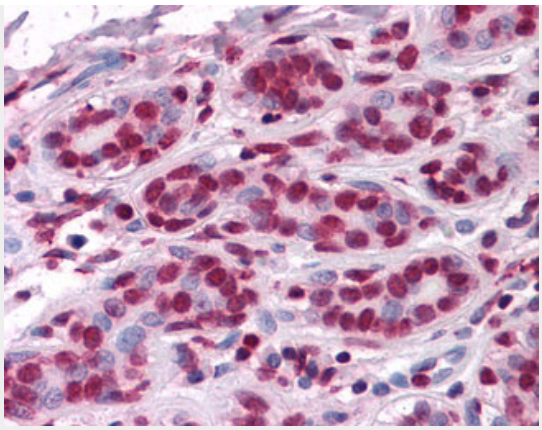
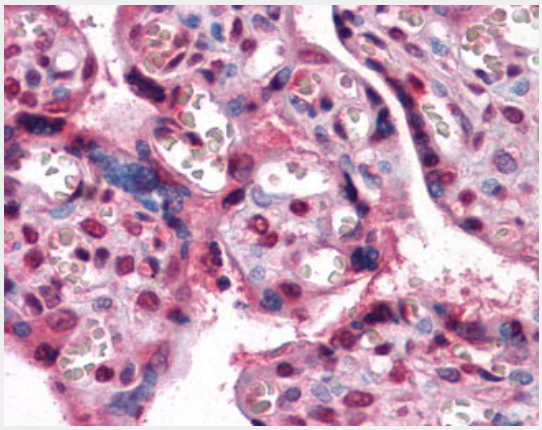


Anti-ZBTB7B antibody IHC of human breast.



Anti-ZBTB7B antibody IHC of human placenta.

ZBTB7B / HcKrox Antibody (clone 7C12) - Background

Transcription regulator that acts as a key regulator of lineage commitment of immature T-cell precursors. 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. Transcriptional repressor of the collagen COL1A1 and COL1A2 genes. May also function as a repressor of fibronectin and possibly other extracellular matrix genes (By similarity).

ZBTB7B / HcKrox Antibody (clone 7C12) - References

Widom R.L.,et al.Gene 198:407-420(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Gregory S.G.,et al.Nature 441:315-321(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.