

#12831 Store at -20°C

TAL1 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Transfected Only	50	Rabbit	#P17542	6886

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

TAL1 Antibody recognizes transfected levels of total TAL1 protein.

Species predicted to react based on 100% sequence homology:

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human TAL1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The basic helix-loop-helix (bHLH) family of transcription factors play roles in a variety of developmental and adult biological settings (1). The basic (b) domain of bHLH transcription factors allows association with DNA, while the HLH domain facilitates the mono- and heterodimeric interactions required for efficient DNA binding (1). TAL1, also known as SCL, is a bHLH transcription factor that plays an essential role in the generation of embryonic hematopoietic stem cells (2), and is required for maturation of erythroid and megakaryocytic lineages in the adult (3). TAL1 interacts with Lim-domain containing proteins LMO2 and Ldb1, and has been found in complexes with these proteins as well as the hematopoietic transcription factor GATA-1 (4). Both TAL1 and LMO2 have been associated with T-cell acute lymphoblastic leukemia (T-ALL) (5,6). TAL1 activity is essential for both hematopoiesis and neurogenesis (7).

Background References

1. Massari, M.E. and Murre, C. (2000) *Mol Cell Biol* 20, 429-40.
2. Gering, M. et al. (1998) *EMBO J* 17, 4029-45.
3. Hall, M.A. et al. (2003) *Proc Natl Acad Sci U S A* 100, 992-7.
4. Wadman, I.A. et al. (1997) *EMBO J* 16, 3145-57.
5. Lécuyer, E. and Hoang, T. (2004) *Exp Hematol* 32, 11-24.
6. Rabbitts, T.H. (1998) *Genes Dev* 12, 2651-7.
7. Bradley, C.K. et al. (2006) *Eur J Neurosci* 23, 1677-89.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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