

### KLF1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14499b

## **Specification**

## KLF1 Antibody (C-term) - Product Information

**Application** WB,E **Primary Accession** 013351 NP 006554.1 Other Accession Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 38221 Antigen Region 248-276

## KLF1 Antibody (C-term) - Additional Information

#### **Gene ID** 10661

#### **Other Names**

Krueppel-like factor 1, Erythroid krueppel-like transcription factor, EKLF, KLF1, EKLF

#### Target/Specificity

This KLF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 248-276 amino acids from the C-terminal region of human KLF1.

#### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### 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**

KLF1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## KLF1 Antibody (C-term) - Protein Information

### Name KLF1

## **Synonyms EKLF**



**Function** Transcription regulator of erythrocyte development that probably serves as a general switch factor during erythropoiesis. Is a dual regulator of fetal-to-adult globin switching. Binds to the CACCC box in the beta-globin gene promoter and acts as a preferential activator of this gene. Furthermore, it binds to the BCL11A promoter and activates expression of BCL11A, which in turn represses the HBG1 and HBG2 genes. This dual activity ensures that, in most adults, fetal hemoglobin levels are low. Able to activate CD44 and AQP1 promoters (PubMed:21055716). When sumoylated, acts as a transcriptional repressor by promoting interaction with CDH2/MI2beta and also represses megakaryocytic differentiation.

## **Cellular Location**

Nucleus. Note=Colocalizes with SUMO1 in nuclear speckles.

#### **Tissue Location**

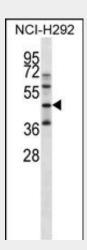
Expression restricted to adult bone marrow and fetal liver. Not expressed in myeloid nor lymphoid cell lines

#### KLF1 Antibody (C-term) - Protocols

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

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

## KLF1 Antibody (C-term) - Images



KLF1 Antibody (C-term) (Cat. #AP14499b) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the KLF1 antibody detected the KLF1 protein (arrow).

## KLF1 Antibody (C-term) - Background

This gene encodes a hematopoietic-specific transcription factor that induces high-level expression of adult beta-globin and other erythroid genes. The zinc-finger protein binds to the DNA sequence CCACACCCT found in the beta hemoglobin promoter.





Heterozygous loss-of-function mutations in this gene result in the dominant In(Lu) blood phenotype.

# KLF1 Antibody (C-term) - References

Borg, J., et al. Nat. Genet. 42(9):801-805(2010) Zhou, D., et al. Nat. Genet. 42(9):742-744(2010) Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Papachatzopoulou, A., et al. Hemoglobin 34(4):333-342(2010) Ganesh, S.K., et al. Nat. Genet. 41(11):1191-1198(2009)