

Goat Anti-KLF1 / EKLF Antibody
Peptide-affinity purified goat antibody
Catalog # AF1592a**Specification**

Goat Anti-KLF1 / EKLF Antibody - Product Information

Application	E
Primary Accession	Q13351
Other Accession	NP_006554 , 10661
Reactivity	Human, Mouse
Predicted	Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	38221

Goat Anti-KLF1 / EKLF Antibody - Additional Information**Gene ID** 10661**Other Names**

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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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

Goat Anti-KLF1 / EKLF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-KLF1 / EKLF Antibody - 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

Goat Anti-KLF1 / EKLF 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](#)

Goat Anti-KLF1 / EKLF Antibody - Images**Goat Anti-KLF1 / EKLF Antibody - 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.

Goat Anti-KLF1 / EKLF Antibody - References

Haploinsufficiency for the erythroid transcription factor KLF1 causes hereditary persistence of fetal hemoglobin. Borg J, et al. Nat Genet, 2010 Sep. PMID 20676099.

KLF1 regulates BCL11A expression and gamma- to beta-globin gene switching. Zhou D, et al. Nat Genet, 2010 Sep. PMID 20676097.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.

Multiple loci influence erythrocyte phenotypes in the CHARGE Consortium. Ganesh SK, et al. Nat Genet, 2009 Nov. PMID 19862010.

Distinct modes of gene regulation by a cell-specific transcriptional activator. Sengupta T, et al. Proc Natl Acad Sci U S A, 2009 Mar 17. PMID 19251649.