



Product datasheet

Anti-EKLF / KLF1 antibody [1B6A3] ab175372

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Overview

Product name	Anti-EKLF / KLF1 antibody [1B6A3]
Description	Mouse monoclonal [1B6A3] to EKLF / KLF1
Host species	Mouse
Tested applications	Suitable for: WB, Flow Cyt, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human EKLF/ KLF1 aa 208-362. Expressed in E. Coli. Sequence: PAPQYQGHFQLFRGLQGAPGPATSPSFLSCLGPGTVGT GLGGTAEDPGV IAETAPSKRGRRSWARKRQAAHTCAHPGCGKSYTKSSH KAHLRHTHTGEK PYACTWEGCGWRFARSDDELTRHYRKHTGQRPFRCLCP RAFSRSDHLALH MKRHL Database link: Q13351  Run BLAST with  Run BLAST with
Positive control	Human EKLF / KLF1 recombinant protein; HeLa cells; Human cervical and rectum cancer tissues
General notes	<p>This product was changed from ascites to supernatant. Lot no's high than GR252532-8 are from Tissue Culture Supernatant</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer	Preservative: 0.05% Sodium azide Constituent: 99% PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	1B6A3
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab175372 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 38 kDa.
Flow Cyt		1/200 - 1/400. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		1/200 - 1/1000.

Target

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. When sumoylated, acts as a transcriptional repressor by promoting interaction with CDH2/M12beta and also represses megakaryocytic differentiation.
Tissue specificity	Expression restricted to adult bone marrow and fetal liver. Not expressed in myeloid nor lymphoid cell lines.
Involvement in disease	Defects in KLF1 are the cause of congenital dyserythropoietic anemia type 4 (CDA4) [MIM:613673]. It is a blood disorder characterized by ineffective erythropoiesis and hemolysis resulting in anemia. Circulating erythroblasts and erythroblasts in the bone marrow show various morphologic abnormalities. Affected individuals with CDA4 also have increased levels of fetal hemoglobin.
Sequence similarities	Belongs to the krueppel C2H2-type zinc-finger protein family. Contains 3 C2H2-type zinc fingers.
Post-translational modifications	Acetylated; can be acetylated on both Lys-274 and Lys-288. Acetylation on Lys-274 (by CBP) appears to be the major site affecting EKLF transactivation activity. Sumoylated; sumoylation, promoted by PIAS1, leads to repression of megakaryocyte differentiation. Also promotes the interaction with the CDH4 subunit of the NuRD repression

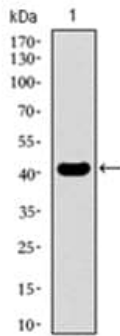
complex.

Phosphorylated primarily on serine residues in the transactivation domain. Phosphorylation on Thr-23 is critical for the transactivation activity.

Cellular localization

Nucleus. Colocalizes with SUMO1 in nuclear speckles.

Images

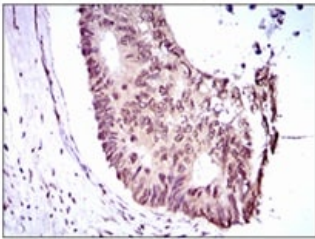


Anti-EKLF / KLF1 antibody [1B6A3] (ab175372) at 1/500 dilution +
Human EKLF / KLF1 recombinant protein

Predicted band size: 38 kDa

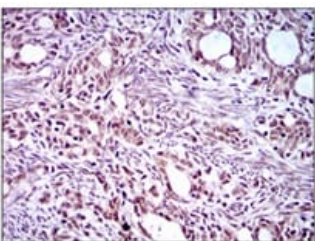
Expected MW is 42.6 kDa

Western blot - Anti-EKLF / KLF1 antibody [1B6A3]
(ab175372)



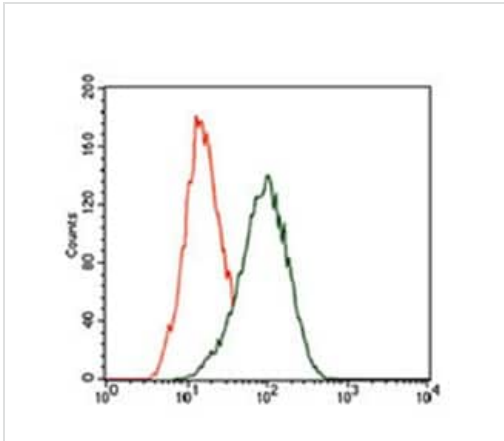
Immunohistochemical analysis of paraffin-embedded
Human rectum cancer tissue labeling EKLF / KLF1 using
ab175372 at 1/200 dilution, followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-EKLF / KLF1 antibody
[1B6A3] (ab175372)



Immunohistochemical analysis of paraffin-embedded
Human cervical cancer tissue labeling EKLF /
KLF1 using ab175372 at 1/200 dilution, followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-EKLF / KLF1 antibody
[1B6A3] (ab175372)



Flow cytometric analysis of HeLa cells labeling EKLF / KLF1 using ab175372 at 1/200 dilution (green) and negative control (red).

Flow Cytometry - Anti-EKLF / KLF1 antibody
[1B6A3] (ab175372)

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