Product datasheet

Anti-EKLF / KLF1 antibody [1B6A3] ab175372

Overview

Product name Anti-EKLF / KLF1 antibody [1B6A3]
Description Mouse monoclonal [1B6A3] to EKLF / KLF1
Host species Mouse
Tested applications Suitable for: ELISA, 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:
PAPQYGQFQLFRQLQGAPAPGLSPFLGLPGT
VGTGLGTAEDPGV
IAETAPSKRGRSWARKRQAAHTCAHPGCYKSTKS
SHLKAHLRTHTGEK
PYACTWEGCGWRFARSDELTRHYRKHTGQPRFRCQL
CPRAFSRSDDLHLMKRHL

Database link: Q13351

Positive control Human EKLF / KLF1 recombinant protein; HeLa cells; Human cervical and rectum cancer tissues

General notes This product was changed from ascites to supernatant. Lot no’s higher than GR252532-8 are from Tissue Culture Supernatant

Properties

Form Liquid
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

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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>1/10000.</td>
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<tr>
<td>Flow Cyt</td>
<td>ab170190</td>
<td>Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>1/200 - 1/1000.</td>
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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/MI2beta 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.
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

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

Immunohistochemical analysis of paraffin-embedded Human cervical cancer tissue labeling EKLF / KLF1 using ab175372 at 1/200 dilution, followed by DAB staining.
Flow cytometric analysis of HeLa cells labeling EKLF / KLF1 using ab175372 at 1/200 dilution (green) and negative control (red).

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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