abcam

Product datasheet

Anti-GATAl antibody ab11852

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Overview

Product name Anti-GATA1 antibody

Description Rabbit polyclonal to GATA1

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Immunogen Synthetic peptide:

K-FPTGPMPPTTSTTVVAPLSS

, with N-terminal added Lysine, conjugated to KLH by a Glutaraldehyde linker, corresponding to

amino acids 394-413 of Human GATA1.

Positive control WB: Human erythroleukamia cells

General notes Storage in frost-free freezers is not recommended. If slight turbidity occurs upon prolonged

storage, clarify the solution by centrifugation before use. Working dilution samples should be

discarded if not used within 12 hours.

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.

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

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 or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.097% Sodium azide Constituents: 0.0268% PBS, 1% BSA

Purity Immunogen affinity purified

1

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab11852 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)	1/400 - 1/800. Predicted molecular weight: 43 kDa.

Target

Function

Transcriptional activator which probably serves as a general switch factor for erythroid development. It binds to DNA sites with the consensus sequence [AT]GATA[AG] within regulatory regions of globin genes and of other genes expressed in erythroid cells.

Tissue specificity

Erythrocytes.

Involvement in disease

Defects in GATA1 are the cause of X-linked dyserythropoietic anemia and thrombocytopenia (XDAT) [MIM:300367]. XDAT is a disorder characterized by erythrocytes with abnormal size and shape, and paucity of platelets in peripheral blood. The bone marrow contains abundant and abnormally small megakaryocytes.

Defects in GATA1 are the cause of X-linked thrombocytopenia with beta-thalassemia (XLTT) [MIM:314050]; also knwon as thrombocytopenia, platelet dysfunction, hemolysis, and imbalanced globin synthesis. XLTT consists of an unusual form of thrombocytopenia with beta-thalassemia. Patients have splenomegaly and petechiae, moderate thrombocytopenia, prolonged bleeding time due to platelet dysfunction, reticulocytosis and unbalanced hemoglobin chain synthesis resembling that of beta-thalassemia minor.

Defects in GATA1 are the cause of anemia without thrombocytopenia X-linked (XLAWT) [MIM:300835]. XLAWT is a form of anemia characterized by abnormal morphology of erythrocytes and granulocytes in peripheral blood, bone marrow dysplasia with hypocellularity of erythroid and granulocytic lineages, and normal or increased number of megakaryocytes. Neutropenia of a variable degree is present in affected individuals.

Sequence similarities

Contains 2 GATA-type zinc fingers.

Domain

The two fingers are functionally distinct and cooperate to achieve specific, stable DNA binding. The first finger is necessary only for full specificity and stability of binding, whereas the second one is required for binding.

Post-translational modifications

Highly phosphorylated on serine residues. Phosphorylation on Ser-310 is enhanced on erythroid differentiation. Phosphorylation on Ser-142 promotes sumoylation on Lys-137.

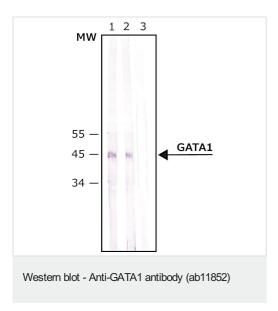
Sumoylation on Lys-137 is enhanced by phosphorylation on Ser-142 and by interaction with

PIAS4. Sumoylation by SUMO1 has no effect on transcriptional activity.

Cellular localization

Nucleus.

Images



Lane 1: Anti-GATA1 antibody (ab11852) at 1/400 dilution

Lane 2: Anti-GATA1 antibody (ab11852) at 1/800 dilution

Lane 3: Negative control

All lanes: K562 Human erythroleukamia cells

Predicted band size: 43 kDa

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

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