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Product datasheet

Anti-GATA1 antibody ab11852

1 Abreviews 8 References

Overview

Product name	Anti-GATA1 antibody
Description	Rabbit polyclonal to GATA1
Host species	Rabbit
Tested applications	**Suitable for:** CHIPseq, WB
Species reactivity	**Reacts with:** Mouse, 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. Run BLAST with Run BLAST with
Positive control	K562 cell line.
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.

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
Clonality	Polyclonal
Isotype	IgG

Applications

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
CHIPseq		Use at an assay dependent concentration. PubMed: 21795385
WB	★★★★★	1/400. Detects a band of approximately 45 kDa (predicted molecular weight: 43 kDa). This concentration is determined using whole extract of K562 human chronic myelogenous leukemia cells. Detects a band of approximately 45 kDa. An additional lower molecular weight band may appear in some preparations. Staining of the GATA1 band is inhibited by the GATA1 peptide (amino acid residues 394-413)

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.

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