abcam

Product datasheet

Anti-GATA1 antibody ab92891

1 Image

Overview

Product name	Anti-GATA1 antibody
Description	Rabbit polyclonal to GATA1
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide: KASGK , corresponding to amino acids 308-312 of Human GATA1 Run BLAST with Run BLAST with
Positive control	HeLa, 293, Jurkat, THP1 & 3T6 cell lysates

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, pH 7.4
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab92891** in the following tested applications.

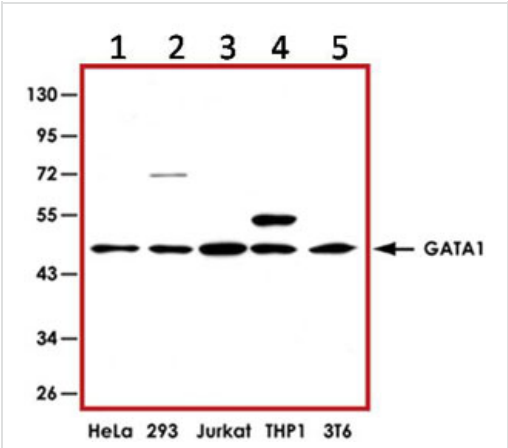
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. 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



Western blot - GATA1 antibody (ab92891)

All lanes : Anti-GATA1 antibody (ab92891) at 1/1000 dilution

Lane 1 : HeLa cell lysate
Lane 2 : 293 cell lysate
Lane 3 : Jurkat cell lysate
Lane 4 : THP1 cell lysate
Lane 5 : 3T6 cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size : 43 kDa

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