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Product datasheet

Anti-GATA1 (phospho S310) antibody ab194912

1 References 2 Images

Overview

Product name	Anti-GATA1 (phospho S310) antibody
Description	Rabbit polyclonal to GATA1 (phospho S310)
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human GATA1 (phospho S310). The exact sequence is proprietary. Phospho specific peptide corresponding to residues surrounding Serine 310 of Human GATA1. Database link: **P15976**
Positive control	HT29 cell extract, treated with Anisomycin; HeLa cells.
General notes	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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab194912 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: 43 kDa.
ICC/IF		1/100 - 1/200.

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.

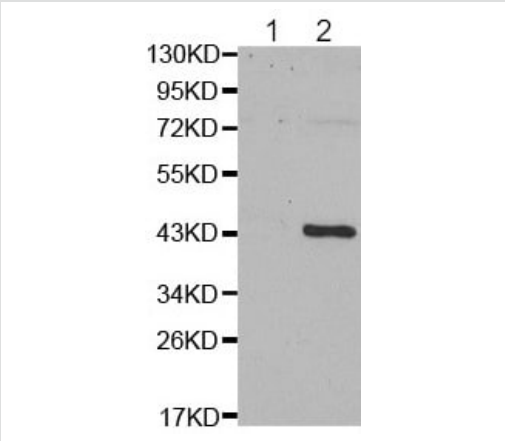
Sequence similarities Contains 2 GATA-type zinc fingers.

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



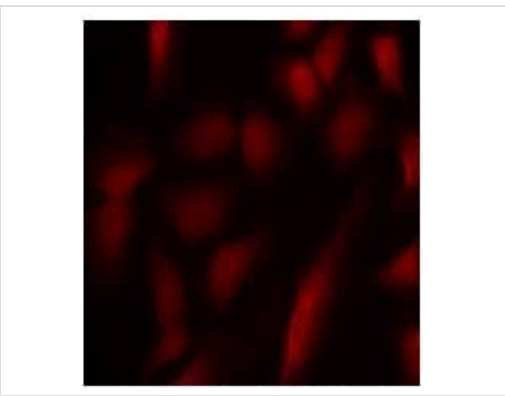
Western blot - Anti-GATA1 (phospho S310) antibody (ab194912)

All lanes : Anti-GATA1 (phospho S310) antibody (ab194912) at 1/500 dilution

Lane 1 : HT29 cell extract, untreated

Lane 2 : HT29 cell extract, treated with Anisomycin

Predicted band size: 43 kDa



Immunocytochemistry/ Immunofluorescence - Anti-GATA1 (phospho S310) antibody (ab194912)

Immunofluorescent analysis of methanol-fixed HeLa cells labeling GATA1 (phospho S310) with ab194912 at 1/100 dilution.

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