



Rabbit Anti-phospho-GATA1 (ser142) antibody

SL5369R

Product Name:	phospho-GATA1 (ser142)
Chinese Name:	磷酸化珠蛋白转录因子1抗体
Alias:	GATA1 (phospho S142); p-GATA1 (phospho S142); GATA1(Phospho-Ser142); GATA1; ERYF 1; ERYF1 antibody Erythroid transcription factor; Erythroid transcription factor 1; GATA 1; GATA binding factor 1; GATA binding protein 1; GF 1; GF1; Globin transcription factor 1; NF E1; NF E1 DNA binding protein; NFE 1; NFE1; GATA1_HUMAN; Erythroid transcription factor; Eryf1; GATA-binding factor 1; GATA-1; GF-1; NF-E1 DNA-binding protein.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	43kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human GATA1 around the phosphorylation site of ser142:RL(p-S)PD
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

GATA1 is a Cys2/Cys2 zinc finger DNA binding protein that is expressed primarily in erythroid, megakaryocytic, mast cells and eosinophilic cells. It belongs to the GATA family of transcription factors. GATA1 is a 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. The protein also plays an important role in erythroid development by regulating the switch from fetal hemoglobin production to adult hemoglobin.

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.

Subunit:

May form homodimers or heterodimers with other isoforms. Interacts (via the N-terminal zinc finger) with ZFPM1. Interacts with GFI1B. Interacts with PIAS4; the interaction enhances sumoylation and represses the transactivational activity in a sumoylation-independent manner. Interacts with LMCD1.

Subcellular Location:

Nucleus.

Tissue Specificity:

Erythrocytes.

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.

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 known 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.

Product Detail:

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.

Similarity:

Contains 2 GATA-type zinc fingers.

SWISS:

P15976

Gene ID:

2623

Database links:

[Entrez Gene: 2623](#)Human

[Entrez Gene: 14460](#)Mouse

[Omim: 305371](#)Human

[SwissProt: P15976](#)Human

[SwissProt: P17679](#)Mouse

[Unigene: 765](#)Human

[Unigene: 335973](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.