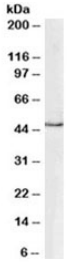
GATA Binding Protein 1 Antibody / GATA1 Antibody (R33371)

Catalog No.	Formulation	Size
R33371-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Dog, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	2623
Applications	Western blot: 0.3-1ug/ml ELISA (peptide) LOD: 1:16000
Limitations	This GATA Binding Protein 1 Antibody / GATA1 Antibody is available for research use only.



GATA Binding Protein 1 Antibody Human PBMC WB. Western blot analysis of GATA1 expression was performed using anti-GATA1 antibody on human peripheral blood mononuclear cell (PBMC) lysate. A specific immunoreactive band is detected at approximately 43 kDa, consistent with the predicted molecular weight of GATA1. GATA1 is a zinc finger transcription factor that serves as a master regulator of erythropoiesis by controlling genes required for erythroid lineage commitment, hemoglobin synthesis, and red blood cell maturation. Although GATA1 expression is primarily associated with erythroid and megakaryocytic lineages, its detection in PBMC lysate reflects the presence of hematopoietic cell populations expressing this lineage-specific transcription factor. These results support the utility of GATA Binding Protein 1 Antibody for studies of hematopoiesis, erythropoiesis, hematopoietic transcriptional regulation, and blood cell differentiation.

Description

GATA Binding Protein 1 Antibody recognizes GATA1, a zinc finger DNA-binding transcription factor that is essential for

erythroid lineage commitment and normal hematopoietic development. GATA1 regulates the transcription of numerous genes involved in hemoglobin synthesis, erythrocyte maturation, and megakaryocyte differentiation by binding GATA consensus sequences within target gene promoters and enhancers. As one of the master regulators of blood cell development, GATA1 orchestrates the transition of hematopoietic progenitor cells into mature erythroid cells while promoting cell survival and terminal differentiation. Consequently, GATA1 has become one of the most widely studied biomarkers of erythropoiesis, hematopoietic differentiation, and blood cell development.

GATA Binding Protein 1 Antibody is widely used for investigations of hematopoietic stem cell biology, developmental hematology, and transcriptional regulation. GATA1 functions in concert with transcription factors including TAL1, KLF1, RUNX1, and FOG1 to coordinate lineage-specific gene expression, globin production, heme biosynthesis, and erythroid maturation. Beyond erythropoiesis, GATA1 also regulates megakaryocyte maturation, platelet formation, eosinophil differentiation, and mast cell development, highlighting its broader importance throughout hematopoietic lineage specification. Because GATA1 controls multiple stages of blood cell differentiation, it serves as a valuable marker for studies of normal hematopoiesis as well as hematologic disease.

Loss or dysregulation of GATA1 activity has been associated with numerous inherited and acquired disorders of hematopoiesis, including congenital anemias, Diamond-Blackfan anemia, transient abnormal myelopoiesis associated with Down syndrome, acute megakaryoblastic leukemia, and myelodysplastic syndromes. Altered GATA1 expression has also been investigated in stem cell differentiation, regenerative medicine, and leukemia biology, where disruption of normal transcriptional programs contributes to disease progression. As a result, GATA1 remains an important biomarker for evaluating erythroid differentiation, hematopoietic lineage commitment, and transcriptional regulation during development and disease.

GATA Binding Protein 1 Antibody is an excellent research tool for investigations of hematopoiesis, erythropoiesis, hematopoietic stem cell biology, developmental biology, transcriptional regulation, leukemia research, and regenerative medicine. Detection of GATA1 supports studies of blood cell development, erythroid differentiation, megakaryocyte biology, and the molecular mechanisms controlling normal and abnormal hematopoiesis.

Explore our GATA1 Antibody / Hematopoietic Transcription Factor Antibody page to learn more about this master regulator of hematopoietic differentiation, erythropoiesis, and blood cell development.

Application Notes

Optimal dilution of the GATA Binding Protein 1 Antibody / GATA1 Antibody should be determined by the researcher.

Immunogen

Amino acids DAEAYRHSPVFQ were used as the immunogen for this GATA1 / GATA Binding Protein 1 antibody.

Storage

Aliquot and store the GATA1 / GATA Binding Protein 1 antibody at -20oC.

Alternate Names

GATA Binding Protein 1 antibody, GATA1 antibody, GATA-1 antibody, Erythroid Transcription Factor antibody, Hematopoietic Transcription Factor antibody, Zinc Finger Transcription Factor antibody

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