

## Product datasheet

# GATA1 peptide (65-76) ab45795

### Overview

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**Product name** GATA1 peptide (65-76)

### Description

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**Nature** Synthetic

**Amino Acid Sequence**

**Species** Human

**Sequence** C-DAEAYRHSPVFQ

**Amino acids** 65 to 76

### Specifications

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Our [Abpromise guarantee](#) covers the use of **ab45795** in the following tested applications.

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

**Applications** Blocking - Blocking peptide for Anti-GATA1 antibody ([ab40847](#))

**Form** Liquid

### Preparation and Storage

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**Stability and Storage** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

### General Info

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**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 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.

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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