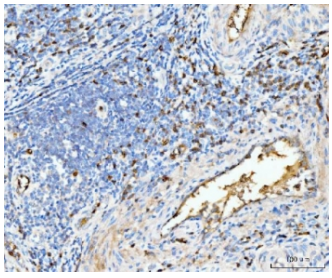
Hemoglobin Alpha Antibody / HBA1/2 Antibody (RQ6772)

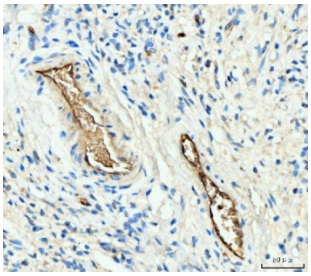
Catalog No.	Formulation	Size
RQ6772	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

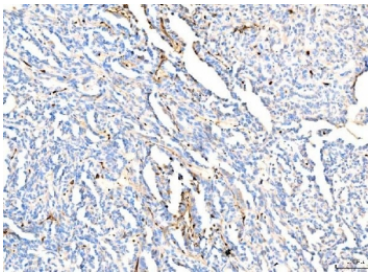
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P69905
Localization	Cytoplasmic, extracellular
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Hemoglobin Alpha Antibody / HBA1/2 Antibody is available for research use only.



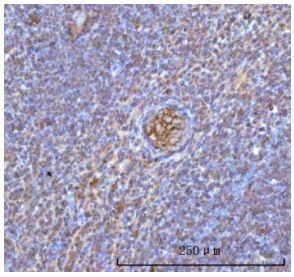
Hemoglobin Alpha Antibody in Human Liver IHC. Immunohistochemistry testing of Hemoglobin Alpha Antibody / HBA1/2 Antibody in FFPE human liver tissue. Strong immunoreactivity is observed in erythrocytes within vascular and sinusoidal spaces, consistent with the abundant expression of alpha-globin in red blood cells.



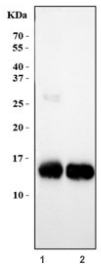
Hemoglobin Alpha Antibody in Human Kidney IHC. Immunohistochemistry testing of Hemoglobin Alpha Antibody / HBA1/2 Antibody in FFPE human kidney tissue. Strong staining is observed predominantly in erythrocytes within blood vessels and vascular spaces, consistent with the erythroid distribution of hemoglobin alpha.



Hemoglobin Alpha Antibody in Human Spleen IHC. Immunohistochemistry testing of Hemoglobin Alpha Antibody / HBA1/2 Antibody in FFPE human spleen tissue. Strong immunoreactivity is observed in erythrocyte-rich regions of the tissue, consistent with detection of alpha-globin in red blood cells.



Hemoglobin Alpha Antibody in Human Placenta IHC. Immunohistochemistry testing of Hemoglobin Alpha Antibody / HBA1/2 Antibody in FFPE human placenta tissue. Strong staining is observed in erythrocytes within placental vascular spaces, consistent with the abundant expression of alpha-globin in erythroid cells.



Hemoglobin Alpha Antibody in Human and Mouse WB. Western blot testing of Hemoglobin Alpha Antibody / HBA1/2 Antibody in human and mouse tissue lysates. A prominent band is observed at approximately 15-16 kDa, consistent with the expected molecular weight of alpha-globin. This HBA1/2 Antibody demonstrates detection of hemoglobin alpha in the tested human and mouse samples.

Description

Hemoglobin Alpha Antibody / HBA1/2 Antibody recognizes alpha-globin, a major protein component of adult hemoglobin. Human alpha-globin is encoded by the closely related HBA1 and HBA2 genes within the alpha-globin gene cluster on chromosome 16. The HBA1 and HBA2 proteins have identical amino acid sequences and associate with beta-like globin chains to form the tetrameric hemoglobin molecules responsible for oxygen transport in erythrocytes.

In adult red blood cells, alpha-globin primarily associates with beta-globin to form hemoglobin A (HbA; alpha2beta2), the predominant adult hemoglobin. Alpha-globin also associates with delta-globin to form the minor adult hemoglobin HbA2. During fetal development, alpha-globin pairs predominantly with gamma-globin to form fetal hemoglobin (HbF). The coordinated expression of globin genes during development is therefore essential for normal erythropoiesis and efficient oxygen transport.

Alpha-globin synthesis must remain balanced with production of its partner globin chains. Reduced or absent expression of HBA1 and/or HBA2 underlies alpha-thalassemia, a group of inherited hemoglobin disorders with severity influenced by the number and type of affected alpha-globin genes. Conversely, an excess of unpaired alpha-globin chains contributes to erythroid cell damage in beta-thalassemia. These relationships make hemoglobin alpha an important target in research involving erythropoiesis, hemoglobinopathies, red blood cell development and hematologic disease.

Beyond circulating erythrocytes, detection of alpha-globin can be useful for identifying erythroid cells and blood-associated components within tissues. Because hemoglobin is highly abundant in mature red blood cells, HBA1/2 expression provides a useful molecular indicator of erythroid differentiation and hemoglobin production.

This rabbit polyclonal antibody was generated against a synthetic peptide corresponding to the human alpha-globin sequence AVHASLDKFLASVSTVLTSKYR and is antigen affinity purified. It recognizes human and mouse HBA1/2. NSJ Bioreagents provides this Hemoglobin Alpha Antibody for research into erythroid biology, hemoglobin expression and

oxygen transport. An HBA1/2 Antibody can support studies of alpha-globin expression, erythropoiesis and hemoglobin-associated disorders.

Explore our Antibodies page for additional primary antibodies targeting proteins involved in cell biology, metabolism, signaling and disease research.

Application Notes

Optimal dilution of the Hemoglobin Alpha Antibody / HBA1/2 Antibody should be determined by the researcher.

Immunogen

Amino acids AVHASLDKFLASVSTVLTSKYR from the human protein were used as the immunogen for the Hemoglobin Alpha Antibody.

Storage

After reconstitution, the Hemoglobin Alpha Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Hemoglobin Alpha antibody, HBA1 antibody, HBA2 antibody, HBA1/2 antibody, alpha-globin antibody, hemoglobin subunit alpha antibody

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