abcam

Product datasheet

Anti-Hemoglobin antibody ab231584

4 Images

Overview

Product name	Anti-Hemoglobin antibody
Description	Rabbit polyclonal to Hemoglobin
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Dog, Human, Rhesus monkey
Immunogen	Full length protein corresponding to Rhesus monkey Hemoglobin. (Native Protein).
Positive control	WB: Recombinant monkey Hemoglobin protein; Human liver and blood cell lysates; Canine serum.
General notes	Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough. Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility. We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee. In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for. We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee. Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee. 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, as well as 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: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol
Purity	Immunogen affinity purified
Purification notes	ab231584 was purified by antigen-specific affinity chromatography followed by Protein A affinity chromatography.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab231584** in the following tested applications.

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

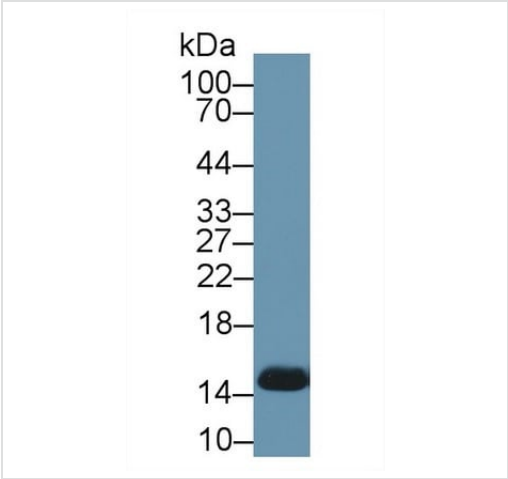
Application	Abreviews	Notes
WB		Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 15 kDa.

Target

Function	Involved in oxygen transport from the lung to the various peripheral tissues.
Tissue specificity	Red blood cells.
Involvement in disease	Defects in HBA1/HBA2 may be a cause of Heinz body anemias (HEIBAN) [MIM:140700]. This is a form of non-spherocytic hemolytic anemia of Dacie type 1. After splenectomy, which has little benefit, basophilic inclusions called Heinz bodies are demonstrable in the erythrocytes. Before splenectomy, diffuse or punctate basophilia may be evident. Most of these cases are probably instances of hemoglobinopathy. The hemoglobin demonstrates heat lability. Heinz bodies are observed also with the Ivemark syndrome (asplenia with cardiovascular anomalies) and with glutathione peroxidase deficiency. Defects in HBA1/HBA2 are the cause of alpha-thalassemia (A-THAL) [MIM:604131]. The thalassemias are the most common monogenic diseases and occur mostly in Mediterranean and Southeast Asian populations. The hallmark of alpha-thalassemia is an imbalance in globin-chain production in the adult HbA molecule. The level of alpha chain production can range from none to very nearly normal levels. Deletion of both copies of each of the two alpha-globin genes causes alpha(0)-thalassemia, also known as homozygous alpha thalassemia. Due to the complete absence of alpha chains, the predominant fetal hemoglobin is a tetramer of gamma-chains (Bart hemoglobin) that has essentially no oxygen carrying capacity. This causes oxygen starvation in the fetal tissues leading to prenatal lethality or early neonatal death. The loss of three alpha genes results in high levels of a tetramer of four beta chains (hemoglobin H), causing a severe and life-threatening anemia known as hemoglobin H disease. Untreated, most patients die in childhood or early adolescence. The loss of two alpha genes results in mild alpha-thalassemia, also known as heterozygous alpha-thalassemia. Affected individuals have small red cells and a mild anemia (microcytosis). If three of the four alpha-globin genes are functional, individuals are completely asymptomatic. Some rare forms of alpha-thalassemia are due to point mutations (non-deletional alpha-thalassemia). The thalassemic phenotype is due to unstable globin alpha chains that are

	rapidly catabolized prior to formation of the alpha-beta heterotetramers. Note=Alpha(0)-thalassemia is associated with non-immune hydrops fetalis, a generalized edema of the fetus with fluid accumulation in the body cavities due to non-immune causes. Non-immune hydrops fetalis is not a diagnosis in itself but a symptom, a feature of many genetic disorders, and the end-stage of a wide variety of disorders.
Sequence similarities	Belongs to the globin family.
Post-translational modifications	The initiator Met is not cleaved in variant Thionville and is acetylated.

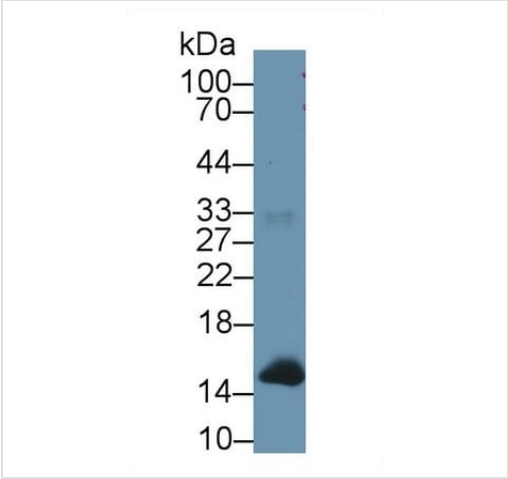
Images



Western blot - Anti-Hemoglobin antibody (ab231584)

Anti-Hemoglobin antibody (ab231584) at 2 µg/ml + Canine serum.

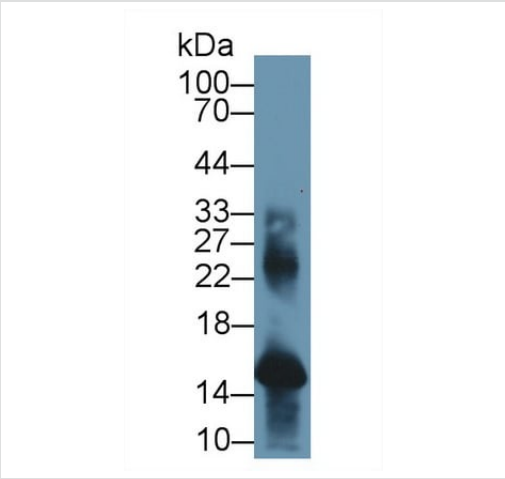
Predicted band size: 15 kDa



Western blot - Anti-Hemoglobin antibody (ab231584)

Anti-Hemoglobin antibody (ab231584) at 2 µg/ml + Human liver lysate.

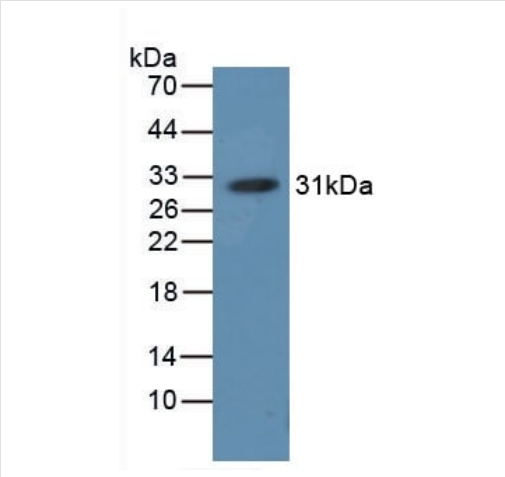
Predicted band size: 15 kDa



Western blot - Anti-Hemoglobin antibody (ab231584)

Anti-Hemoglobin antibody (ab231584) at 2 µg/ml + Human blood cell lysate

Predicted band size: 15 kDa



Western blot - Anti-Hemoglobin antibody (ab231584)

Anti-Hemoglobin antibody (ab231584) at 2 µg/ml + Recombinant monkey hemoglobin protein.

Predicted band size: 15 kDa

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