

**Anti-Hemoglobin Picoband Antibody**  
**Catalog # ABO10043****Specification**

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**Anti-Hemoglobin Picoband Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P69905</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Hemoglobin subunit alpha(HBA1|HBA2) detection. Tested with WB, IHC-P in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Hemoglobin Picoband Antibody - Additional Information**

**Gene ID** 3039;3040

**Other Names**

Hemoglobin subunit alpha, Alpha-globin, Hemoglobin alpha chain, HBA1

**Calculated MW**

15258 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Tissue Specificity**

Red blood cells.

**Protein Name**

Hemoglobin subunit alpha

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

E.coli-derived human Hemoglobin recombinant protein (Position: V2-R142). Human Hemoglobin shares 85.8% amino acid (aa) sequence identity with mouse Hemoglobin.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

### Anti-Hemoglobin Picoband Antibody - Protein Information

**Name** HBA1

**Function**

Involved in oxygen transport from the lung to the various peripheral tissues.

**Tissue Location**

Red blood cells.

### Anti-Hemoglobin Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-Hemoglobin Picoband Antibody - Images

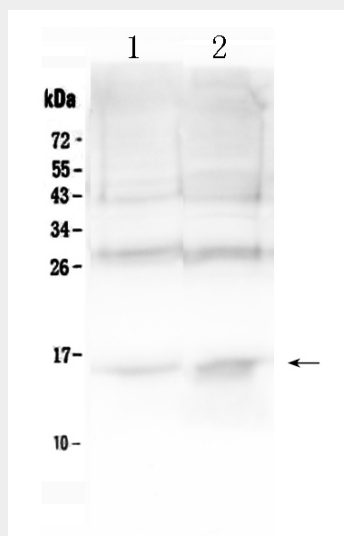


Figure 1. Western blot analysis of Hemoglobin using anti- Hemoglobin antibody (ABO10043). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing

conditions. Lane 1: rat spleen tissue lysates, Lane 2: U2OS whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- Hemoglobin antigen affinity purified polyclonal antibody (Catalog # ABO10043) at 0.5  $\mu$ g/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Hemoglobin at approximately 15KD. The expected band size for Hemoglobin is at 15KD.

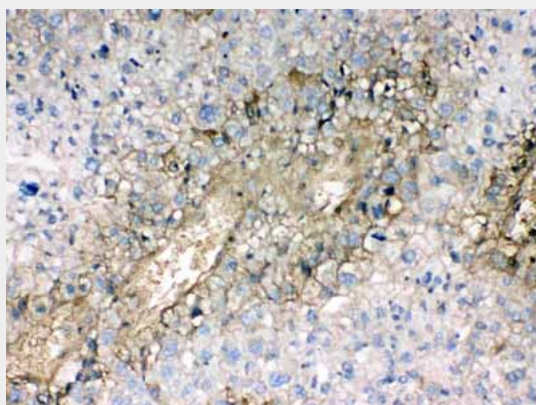


Figure 2. IHC analysis of Hemoglobin using anti- Hemoglobin antibody (ABO10043).Hemoglobin was detected in paraffin-embedded section of human liver cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti- Hemoglobin Antibody (ABO10043) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

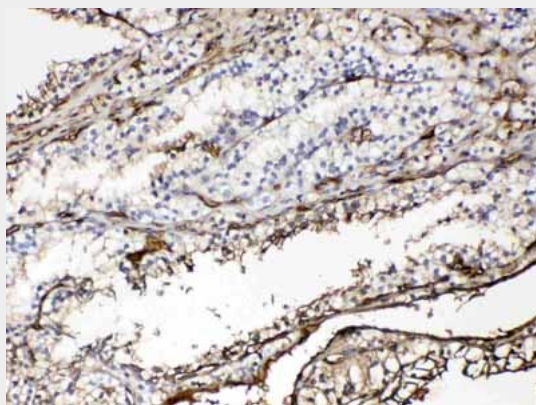


Figure 3. IHC analysis of Hemoglobin using anti- Hemoglobin antibody (ABO10043).Hemoglobin was detected in paraffin-embedded section of human renal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti- Hemoglobin Antibody (ABO10043) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

### Anti-Hemoglobin Picoband Antibody - Background

The human alpha globin gene cluster located on chromosome 16 spans about 30 kb and includes seven loci: 5'- zeta - pseudozeta - mu - pseudoalpha-1 - alpha-2 - alpha-1 - theta - 3'. The alpha-2 (HBA2) and alpha-1 (HBA1) coding sequences are identical. These genes differ slightly over the 5'

untranslated regions and the introns, but they differ significantly over the 3' untranslated regions. Two alpha chains plus two beta chains constitute HbA, which in normal adult life comprises about 97% of the total hemoglobin; alpha chains combine with delta chains to constitute HbA-2, which with HbF (fetal hemoglobin) makes up the remaining 3% of adult hemoglobin. Alpha thalassemias result from deletions of each of the alpha genes as well as deletions of both HBA2 and HBA1; some nondeletion alpha thalassemias have also been reported.