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HBB Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11557b

Specification

HBB Antibody (C-term) - Product Information

Application	**WB, FC, IHC-P,E**
Primary Accession	P68871
Other Accession	P04246, P02101, P02128, P06643, P06642, P02042, P02057, P02112, P02081, P11517, P02089, P02091, P02088, NP_000509.1, P68056, P02083, P02062, P02075
Reactivity	**Human**
Predicted	**Mouse, Rat, Sheep, Bovine, Chicken, Horse, Rabbit, Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**80-107**

HBB Antibody (C-term) - Additional Information

Gene ID 3043

Other Names
Hemoglobin subunit beta, Beta-globin, Hemoglobin beta chain, LVV-hemorphin-7, Spinorphin, HBB

Target/Specificity
This HBB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 80-107 amino acids from the C-terminal region of human HBB.

Dilution
WB~~1:2000
FC~~1:25
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
HBB Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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HBB Antibody (C-term) - Protein Information

Name HBB

Function Involved in oxygen transport from the lung to the various peripheral tissues. [Spinorphin]: Functions as an endogenous inhibitor of enkephalin-degrading enzymes such as DPP3, and as a selective antagonist of the P2RX3 receptor which is involved in pain signaling, these properties implicate it as a regulator of pain and inflammation.

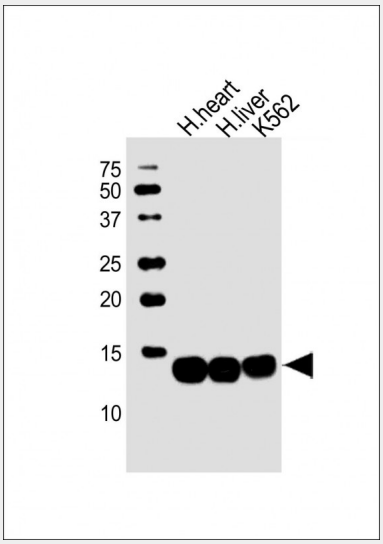
Tissue Location
Red blood cells..

HBB Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HBB Antibody (C-term) - Images



All lanes : Anti-HBB Antibody (C-term) at 1:2000 dilution Lane 1: human heart lysate Lane 2: human liver lysate Lane 3: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 16 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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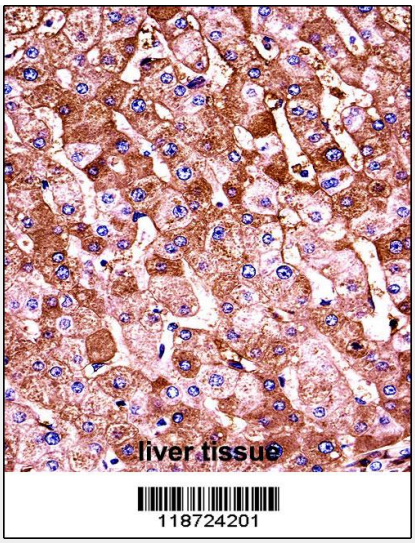
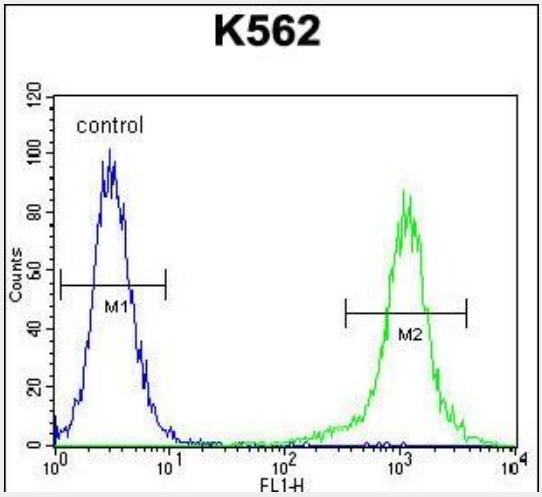
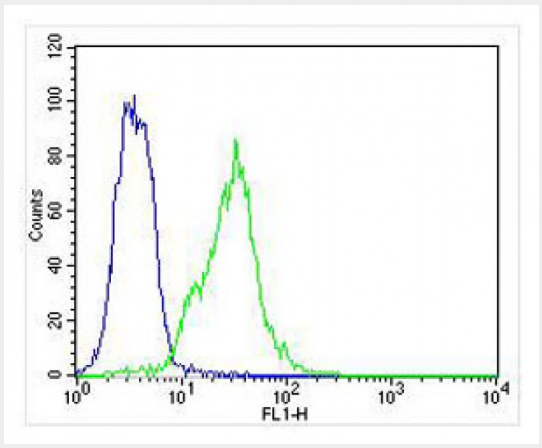


HBB Antibody (C-term) (AP11557b)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of HBB Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



HBB Antibody (C-term) (Cat. #AP11557b) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Overlay histogram showing K562 cells stained with AP11557b (green line). The cells were fixed

with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP12735b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

HBB Antibody (C-term) - Background

The alpha (HBA) and beta (HBB) loci determine the structure of the 2 types of polypeptide chains in adult hemoglobin, Hb A. The normal adult hemoglobin tetramer consists of two alpha chains and two beta chains. Mutant beta globin causes sickle cell anemia. Absence of beta chain causes beta-zero-thalassemia. Reduced amounts of detectable beta globin causes beta-plus-thalassemia. The order of the genes in the beta-globin cluster is 5'-epsilon -- gamma-G -- gamma-A -- delta -- beta--3'.

HBB Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Zhou, D., et al. Nat. Genet. 42(9):742-744(2010)
Onakoya, P.A., et al. Ear Nose Throat J 89(7):306-310(2010)
Belisario, A.R., et al. Acta Haematol. 124(3):162-170(2010)
Prakobkaew, N., et al. Acta Haematol. 124(2):115-119(2010)

HBB Antibody (C-term) - Citations

- Metformin induces FOXO3-dependent fetal hemoglobin production in human primary erythroid cells.
- The Combination of CRISPR/Cas9 and iPSC Technologies in the Gene Therapy of Human β-thalassemia in Mice.
- Improved hematopoietic differentiation efficiency of gene-corrected beta-thalassemia induced pluripotent stem cells by CRISPR/Cas9 system.