

#### **HBG1** Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13696c

### **Specification**

## **HBG1** Antibody (Center) - Product Information

Application WB,E **Primary Accession** P69891 Other Accession NP 000550.2 Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Calculated MW 16128 Antigen Region 56-85

### **HBG1** Antibody (Center) - Additional Information

#### **Gene ID 3047**

#### **Other Names**

Hemoglobin subunit gamma-1, Gamma-1-globin, Hb F Agamma, Hemoglobin gamma-1 chain, Hemoglobin gamma-A chain, HBG1

#### Target/Specificity

This HBG1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 56-85 amino acids from the Central region of human HBG1.

### **Dilution**

WB~~1:1000

#### **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**

HBG1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### **HBG1** Antibody (Center) - Protein Information

#### Name HBG1

**Function** Gamma chains make up the fetal hemoglobin F, in combination with alpha chains.



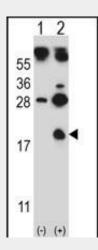
Tissue Location Red blood cells.

## **HBG1** Antibody (Center) - Protocols

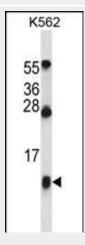
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## **HBG1** Antibody (Center) - Images

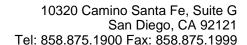


Western blot analysis of HBG1 (arrow) using rabbit polyclonal HBG1 Antibody (Center) (Cat. #AP13696c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the HBG1 gene.



HBG1 Antibody (Center) (Cat. #AP13696c) western blot analysis in K562 cell line lysates (35ug/lane). This demonstrates the HBG1 antibody detected the HBG1 protein (arrow).

**HBG1** Antibody (Center) - Background





The gamma globin genes (HBG1 and HBG2) are normally expressed in the fetal liver, spleen and bone marrow. Two gamma chains together with two alpha chains constitute fetal hemoglobin (HbF) which is normally replaced by adult hemoglobin (HbA) at birth. In some beta-thalassemias and related conditions, gamma chain production continues into adulthood. The two types of gamma chains differ at residue 136 where glycine is found in the G-gamma product (HBG2) and alanine is found in the A-gamma product (HBG1). The former is predominant at birth. The order of the genes in the beta-globin cluster is: 5'-epsilon -- gamma-G -- gamma-A -- delta -- beta--3'.

# **HBG1** Antibody (Center) - References

Zhou, D., et al. Nat. Genet. 42(9):742-744(2010) Miccio, A., et al. Mol. Cell. Biol. 30(14):3460-3470(2010) Nuinoon, M., et al. Hum. Genet. (2009) In press: da Cunha, A.F., et al. Hemoglobin 33(6):439-447(2009) Hamid, M., et al. Hemoglobin 33(6):428-438(2009)