10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HBG1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13696c

Product Information

Application	WB, E
Primary Accession	P69891
Other Accession	NP_000550.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33610
Calculated MW	16128
Antigen Region	56-85

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

Protein Information

Name	HBG1
Function	Gamma chains make up the fetal hemoglobin F, in combination with alpha chains.

Tissue Location Red blood cells.

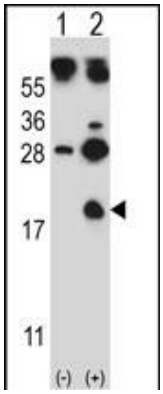
Background

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'.

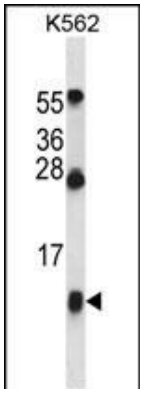
References

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)

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).