

Basic Information

Product Name	Anti-Cytoglobin/CYGB Antibody	
Gene Name	CYGB	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human Cytoglobin recombinant protein (Position: M1-P190). Human Cytoglobin shares 95.3% and 93.7% amino acid (aa) sequence identity with mouse and rat Cytoglobin, respectively.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	21 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

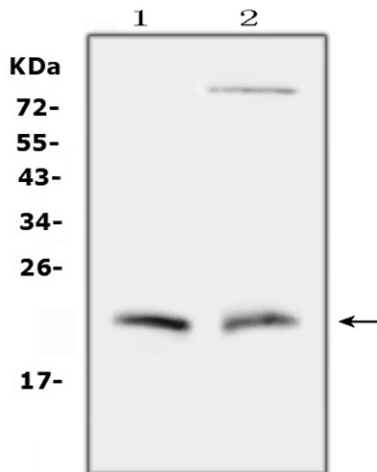
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Cytoglobin(CYGB), also called HGB or STAP, is a ubiquitously expressed hexacoordinate hemoglobin that may facilitate diffusion of oxygen through tissues, scavenge nitric oxide or other reactive oxygen species, or serve a protective function during oxidative stress. The cytoglobin gene is mapped on 17q25.1. The CYGB gene contains 4 exons and spans about 9 kb. Cytoglobin has many elements common to vertebrate globins, including invariant histidine residues, and the amino acids that form the heme pocket share similarity with pentacoordinate myoglobin. In contrast to the high oxygen affinities displayed by most hexacoordinate hemoglobins, the characteristics of CYGB indicate that it can facilitate oxygen transport. Because the oxygen affinity of CYGB is more similar to myoglobin than to neuroglobin, and the oxy form of CYGB resists autooxidation, CYGB is proposed to represent a tissue oxygen reservoir.

Selected Validation Data

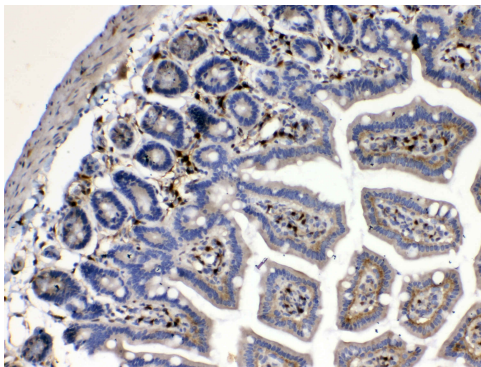


Western blot analysis of Cytoglobin/CYGB using anti-Cytoglobin/CYGB antibody (A01197). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat small intestine tissue lysates,

Lane 2: mouse small intestine tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Cytoglobin/CYGB antigen affinity purified polyclonal antibody (A01197) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Cytoglobin/CYGB at approximately 21 kDa. The expected band size for Cytoglobin/CYGB is at 21 kDa.



IHC analysis of Cytoglobin/CYGB using anti-Cytoglobin/CYGB antibody (A01197).

Cytoglobin/CYGB was detected in a paraffin-embedded section of mouse intestine tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Cytoglobin/CYGB Antibody (A01197) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.