Datasheet for ABIN5518753

anti-CYGB antibody (AA 1-190)

6 Images

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Overview

Quantity:	100 µg
Target:	CYGB
Binding Specificity:	AA 1-190
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Cytoglobin(CYGB) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Cytoglobin(CYGB) detection. Tested with WB, IHC-P in Human,Mouse,Rat. Gene Name: cytoglobin Protein Name: Cytoglobin
Purification:	Immunogen affinity purified.

Target Details

Target:	CYGB
Alternative Name:	CYGB (CYGB Products)
Background:	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. Synonyms: CYGB | Cytoglobin | Hgb | Histoglobin | Q8WWM9
Gene ID:	114757

Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

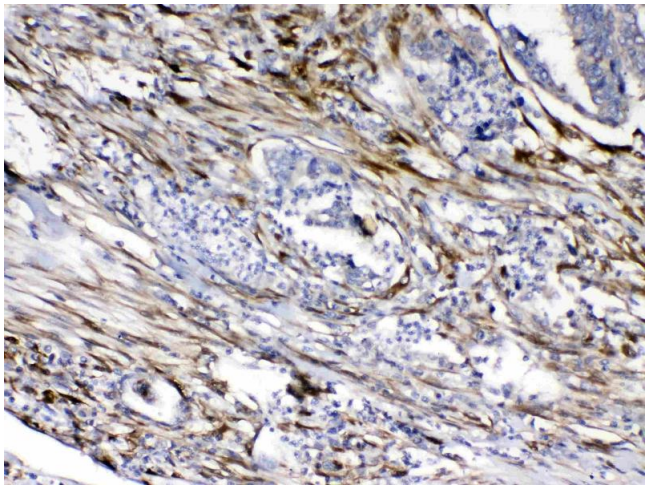
Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Handling

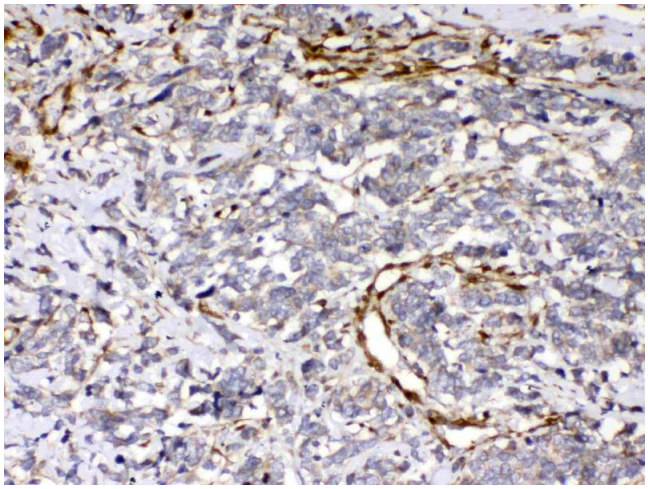
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	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.

Images



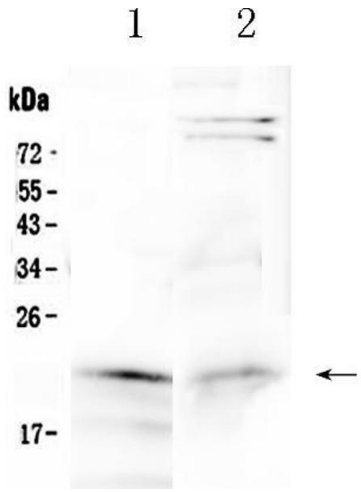
Immunohistochemistry

Image 1. IHC analysis of Cytoglobin using anti- Cytoglobin antibody . Cytoglobin was detected in paraffin-embedded section of human intestinal 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 1µg/ml rabbit anti- Cytoglobin Antibody 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 2. IHC analysis of Cytoglobin using anti- Cytoglobin antibody . Cytoglobin was detected in paraffin-embedded section of human lung 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 1µg/ml rabbit anti- Cytoglobin Antibody 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western Blotting

Image 3. Western blot analysis of Cytoglobin using anti-Cytoglobin antibody . 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 small intestine tissue lysates, Lane 2: mouse small intestine tissue 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-Cytoglobin antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cytoglobin at approximately 21KD. The expected band size for Cytoglobin is at 21KD.

Images

Please check the product details page for more images. Overall 6 images are available for ABIN5518753.