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CYGB Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16031a

Specification

CYGB Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q8WWM9
Other Accession	NP_599030.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**21405**
Antigen Region	**1-30**

CYGB Antibody (N-term) - Additional Information

Gene ID 114757

Other Names
Cytoglobin, Histoglobin, HGb, Stellate cell activation-associated protein, CYGB, STAP

Target/Specificity
This CYGB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human CYGB.

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
CYGB Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CYGB Antibody (N-term) - Protein Information

Name CYGB (HGNC:16505)

Function Probable multifunctional globin with a hexacoordinated heme iron required for the

catalysis of various reactions depending on redox condition of the cell as well as oxygen availability (PubMed:11893755, PubMed:12359339, PubMed:15165856, PubMed:19147491, PubMed:20511233, PubMed:28393874, PubMed:28671819, PubMed:29128400, PubMed:33576020, PubMed:34930834). Has a nitric oxide dioxygenase (NOD) activity and is most probably involved in cell-mediated and oxygen-dependent nitric oxide consumption (PubMed:19147491, PubMed:20511233, PubMed:28393874, PubMed:28671819). By scavenging this second messenger may regulate several biological processes including endothelium-mediated vasodilation and vascular tone (PubMed:19147491, PubMed:28393874). Under normoxic conditions functions as a nitric oxide dioxygenase (NOD) but under hypoxic conditions the globin may switch its function to that of a nitrite (NO2) reductase (NiR), generating nitric oxide (PubMed:29128400). Could also have peroxidase and superoxide dismutase activities, detoxifying reactive oxygen species and protecting cells against oxidative stress (PubMed:12359339, PubMed:33576020, PubMed:34930834). Also binds dioxygen with low affinity and could function as an oxygen sensor but has probably no function as a respiratory oxygen carrier (PubMed:11893755, PubMed:15299006, PubMed:20553503).

Cellular Location
Cytoplasm. Nucleus

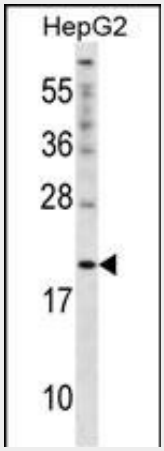
Tissue Location
Widely expressed. Highest expression in heart, stomach, bladder and small intestine.

CYGB Antibody (N-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

CYGB Antibody (N-term) - Images



CYGB Antibody (N-term) (Cat. #AP16031a) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the CYGB antibody detected the CYGB protein (arrow).

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CYGB Antibody (N-term) - Background

Cytoglobin 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 (Trent and Hargrove, 2002 [PubMed 11893755]).

CYGB Antibody (N-term) - References

Gardner, A.M., et al. J. Biol. Chem. 285(31):23850-23857(2010)
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Shaw, R.J., et al. Br. J. Cancer 101(1):139-144(2009)
Halligan, K.E., et al. J. Biol. Chem. 284(13):8539-8547(2009)
Ostojic, J., et al. Arch. Ophthalmol. 126(11):1530-1536(2008)