

Cytoglobin Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51987**Specification**

Cytoglobin Antibody - Product Information

Application	WB
Primary Accession	O8WWM9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	21 KDa
Antigen Region	21 - 80

Cytoglobin Antibody - Additional Information**Gene ID** 114757**Other Names**

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

Target/Specificity

KLH conjugated synthetic peptide derived from human Cytoglobin

Dilution

WB~~ 1:1000

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Cytoglobin Antibody - 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](http://www.uniprot.org/citations/11893755)),
(PubMed: [12359339](http://www.uniprot.org/citations/12359339)),
(PubMed: [15165856](http://www.uniprot.org/citations/15165856)),
(PubMed: [19147491](http://www.uniprot.org/citations/19147491)),
(PubMed: [20511233](http://www.uniprot.org/citations/20511233)),
(PubMed: [28393874](http://www.uniprot.org/citations/28393874)),
(PubMed: [28671819](http://www.uniprot.org/citations/28671819)),
(PubMed: [29128400](http://www.uniprot.org/citations/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.

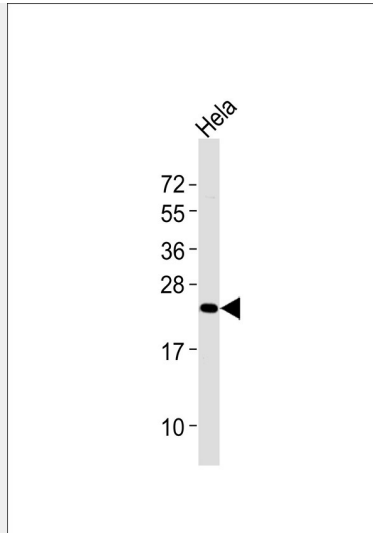
Cytoglobin Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Cytoglobin Antibody - Images





Anti-Cytoglobin Antibody at 1:1000 dilution + HeLa whole cell lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 21 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Cytoglobin Antibody - Background

May have a protective function during conditions of oxidative stress. May be involved in intracellular oxygen storage or transfer.

Cytoglobin Antibody - References

- Burmester T., et al. *Mol. Biol. Evol.* 19:416-421(2002).
- Asahina K., et al. *Biochim. Biophys. Acta* 1577:471-475(2002).
- Ota T., et al. *Nat. Genet.* 36:40-45(2004).
- Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
- Trent J.T. III, et al. *J. Biol. Chem.* 277:19538-19545(2002).