

Cytoglobin Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51987

Product Information

Application	WB
Primary Accession	Q8WWM9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	21405

Additional Information

Gene ID	114757
Other Names	Cytoglobin, Histoglobin, HGb, Stellate cell activation-associated protein, CYGB, STAP
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytoglobin. The exact sequence is proprietary.
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

Protein Information

Name	CYGB (HGNC:16505)
Function	<p>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</p>

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.

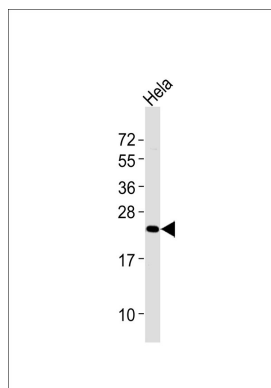
Background

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

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).

Images



Anti-Cytoglobin Antibody at 1:1000 dilution + HeLa whole cell lysates. Lysates/proteins at 20 µg 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.

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