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Anti-Cytoglobin Antibody

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	STAP; Cytoglobin; Histoglobin; HGb; Stellate cell activation-associated protein
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	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

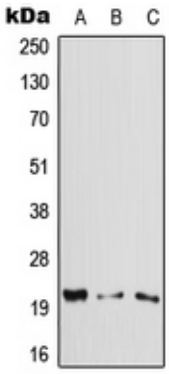
Name	CYGB (HGNC:16505)
Function	Probable multifunctional globin with a hexacoordinated heme iron required for the catalysis of various reactions depending on redox condition of the cell as well as oxygen availability (PubMed:11893755, PubMed:12359339, PubMed:15165856, PubMed:19147491, PubMed:20511233, 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.

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



Western blot analysis of Cytoglobin expression in HeLa (A), Raw264.7 (B), PC12 (C) whole cell lysates. (Predicted band size: 21 kD; Observed band size: 21 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.