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# Anti-Cytoglobin Antibody

Catalog # AP51987

## Product Information

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

## Additional Information

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| **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

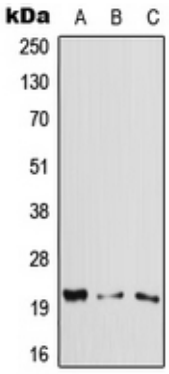
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| **Name** | CYGB ( HGNC:16505) |
| **Function** | Probable multifunctional globin with a hexacoordinated heme iron required for the catalysis of various reactions depending on redox condition of the cell as well as oxygen availability (PubMed:11893755,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

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| | (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)


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