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# Cytoglobin Polyclonal Antibody

Catalog # AP74205

## Product Information

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| **Application** | IHC-P, IF, ICC, E |
| **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** | Cytoglobin (Histoglobin) (HGb) (Stellate cell activation-associated protein) |
| **Dilution** | IHC-P~~IHC-p 1:50-200, ELISA 1:10000-20000 IF~~1:50~200 ICC~~N/A E~~N/A |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| **Storage Conditions** | -20℃ |

## 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 (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).

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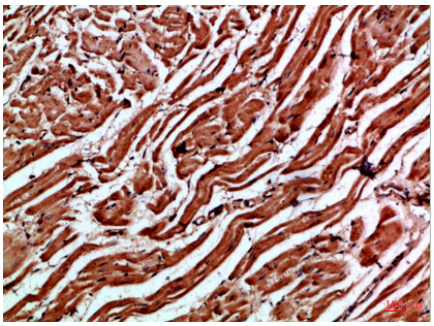
| **Cellular Location** | Cytoplasm. Nucleus |
| **Tissue Location** | Widely expressed. Highest expression in heart, stomach, bladder and small intestine. |

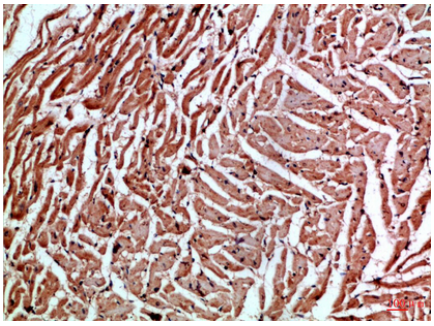
## Background

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

## Images



Immunohistochemical analysis of paraffin-embedded Human-heart, antibody was diluted at 1:100



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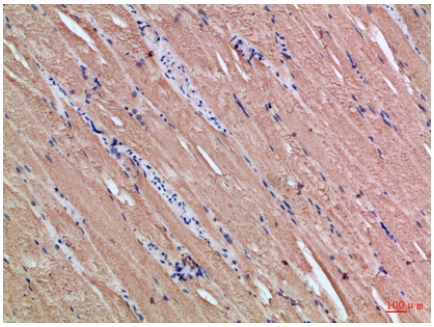
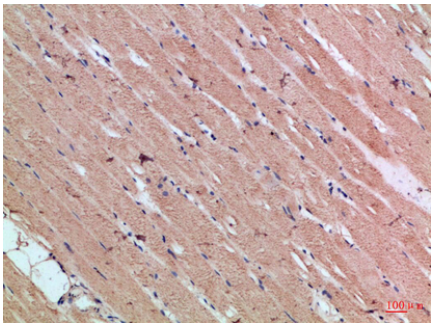


Immunohistochemical analysis of paraffin-embedded Human-skeletal-muscle, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded Human-skeletal-muscle, antibody was diluted at 1:100

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