Human Hemopexin Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4490G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Hemopexin in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Hemopexin Thr24-His462 Accession # P02790
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Hemopexin (HPX) is a 60 kDa plasma glycoprotein with two four-bladed β-propeller folds. This structural motif has been found in other proteins including collagenases and provides sites for protein-protein interactions (1-3). The liver is the major synthesizing organ. Expression in the central nervous system, in the retina, and in peripheral nerves has also been observed. Hemopexin belongs to the family of the acute-phase proteins whose synthesis is induced after an inflammatory event. Hemopexin participates in maintaining and recycling the iron pool by utilizing its high binding affinity toward heme composed of protoporphyrin IX and iron. It also functions in preventing oxidation caused by heme after hemolysis. Hydrophobic heme molecules can intercalate into lipid membranes and participate in the oxidation of lipid membrane components through the Fenton reaction resulting in lipid peroxidation. Hemopexin undergoes a conformational change upon the binding of heme. The conformational change allows hemopexin to interact with a specific receptor, forming a complex which is then internalized. In the plasma, it is likely that heme binds albumin (35-55 g/L) first because of the higher concentration of albumin in plasma than hemopexin (0.5-1.2 g/L), and is then transferred to hemopexin, which has a much higher affinity (K_d ~ 1 pM) toward heme. Heme concentrations in plasma increase after hemolysis, which is associated with several pathological conditions such as reperfusion injury and ischemia.

PRODUCT SPECIFIC NOTICES

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