

Hemopexin (F-12): sc-373675

BACKGROUND

Hemopexin (also known as β 1B glycoprotein or HPX), a 462 amino acid protein, functions as a scavenger and transporter of toxic plasma heme, transporting heme to the liver for breakdown and iron recovery. Hemopexin cooperates with Albumin, Haptoglobin and high and low density lipoproteins to trap toxic plasma heme, which occurs as the result of the degradation of hemoglobin, myoglobin and enzymes with heme prosthetic groups, and to ensure the clearance of toxic heme from the plasma. After releasing the heme molecule, the free Hemopexin returns to circulation. It is expressed by the liver and is secreted in plasma. Hemopexin may play a role in the maintenance of metal ion homeostasis. It binds the following metal ions in order of highest to lowest affinity: nickel, copper, cobalt, zinc and manganese. Hemopexin can also act as a toxic protease that leads to proteinuria and glomerular alterations, which are characteristics of minimal changes disease (MCD), a common cause of nephrotic syndrome.

REFERENCES

1. Bakker, W.W., et al. 2005. Altered activity of plasma Hemopexin in patients with minimal change disease in relapse. *Pediatr. Nephrol.* 20: 1410-1415.
2. Bakker, W.W., et al. 2005. Protease activity of plasma Hemopexin. *Kidney Int.* 68: 603-610.
3. Mauk, M.R., et al. 2005. Metal ion binding to human Hemopexin. *Biochemistry* 44: 1864-1871.
4. Hvidberg, V., et al. 2005. Identification of the receptor scavenging Hemopexin-heme complexes. *Blood* 106: 2572-2579.
5. Nakaniwa, M., et al. 2005. Genomic sequences encoding two types of medaka Hemopexin-like protein Wap65, and their gene expression profiles in embryos. *J. Exp. Biol.* 208: 1915-1925.

CHROMOSOMAL LOCATION

Genetic locus: HPX (human) mapping to 11p15.4.

SOURCE

Hemopexin (F-12) is a mouse monoclonal antibody raised against amino acids 163-462 mapping at the C-terminus of Hemopexin of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Hemopexin (F-12) is available conjugated to agarose (sc-373675 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373675 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373675 PE), fluorescein (sc-373675 FITC), Alexa Fluor® 488 (sc-373675 AF488), Alexa Fluor® 546 (sc-373675 AF546), Alexa Fluor® 594 (sc-373675 AF594) or Alexa Fluor® 647 (sc-373675 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373675 AF680) or Alexa Fluor® 790 (sc-373675 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Hemopexin (F-12) is recommended for detection of Hemopexin of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Hemopexin siRNA (h): sc-60778, Hemopexin shRNA Plasmid (h): sc-60778-SH and Hemopexin shRNA (h) Lentiviral Particles: sc-60778-V.

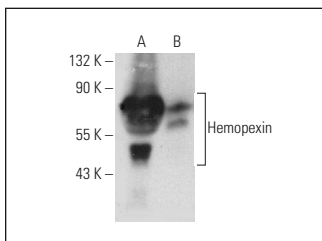
Molecular Weight of Hemopexin: 80-85 kDa.

Positive Controls: human plasma extract: sc-364374 or human liver extract: sc-363766.

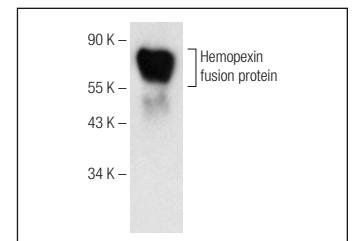
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Hemopexin (F-12): sc-373675. Western blot analysis of Hemopexin in human plasma (A) and Hemopexin expression in human liver tissue extract (B).



Hemopexin (F-12): sc-373675. Western blot analysis of human recombinant Hemopexin fusion protein.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.