abcam

ab226099

Anti-Hemopexin antibody [EPR5610] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR5610
Purification technique	Affinity purification Protein A
Dissociation constant	8.3 x 10^{-12} M
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human

Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Hemopexin

Function	Binds heme and transports it to the liver for breakdown and iron recovery, after which the free hemopexin returns to the circulation.

Storage

Shipped at conditions	Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab226099 is the carrier-free version of ab124935.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Hemopexin also known as HPX is a glycoprotein that transports heme in the blood. It has a molecular weight of approximately 57 kDa and is primarily expressed in the liver. Hemopexin binds to free heme with high affinity which prevents oxidative damage and conserves iron. It transports the heme to hepatocytes for breakdown and recycling protecting cells from iron-mediated toxicity and oxidative stress.
Biological function summary	The hemopexin function relates to protecting tissues from the harmful effects of free heme. Hemopexin does not work as part of a complex in this process but

	mainly acts independently. Its high binding affinity plays an important role in maintaining heme homeostasis in the plasma and tissues. By controlling heme levels hemopexin supports overall cellular health and function.
Pathways	The hemopexin molecular weight allows it to fit effectively within the heme metabolism and iron recycling pathways. This protein plays a significant role by delivering heme to the liver and facilitating its degradation by heme oxygenase. Hemopexin interacts closely with heme oxygenase and albumin two proteins important for the management of heme and iron levels in the body.
Associated diseases and disorders	Several hemopexin functions contribute to the understanding of conditions such as hemolytic anemia and acute liver injury. In hemolytic anemia hemopexin helps mitigate the effects of increased heme levels due to excessive red blood cell breakdown. In the context of liver injury the protein assists in the detoxification process and supports hepatic function. Hemopexin-related proteins such as heme oxygenase link these diseases to hemopexin by their roles in managing oxidative stress and heme catabolism.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images

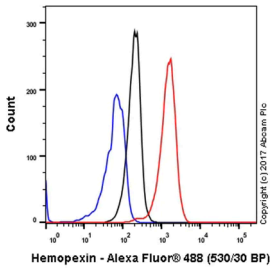


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hemopexin antibody [EPR5610] - BSA and Azide free (ab226099)

Hemopexin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Hemopexin antibody

ab124935, at 1/250 dilution, staining Hemopexin in paraffin-embedded Human liver tissue by Immunohistochemistry.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124935).

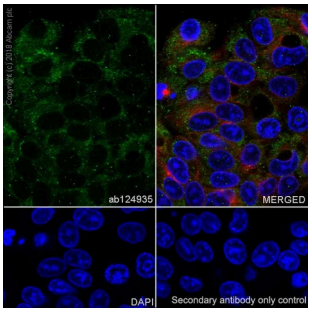
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Hemopexin antibody [EPR5610] - BSA and Azide free (ab226099)

Hemopexin Flow Cytometry (Intracellular) staining using rabbit Anti-Hemopexin antibody

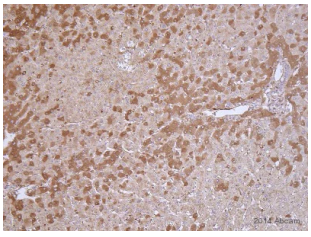
Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling Hemopexin (red) with ab124935 at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) (ab172730). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124935)



Immunocytochemistry/ Immunofluorescence - Anti-Hemopexin antibody [EPR5610] - BSA and Azide free (ab226099)

Hemopexin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Hemopexin antibody

This data was developed using the same antibody clone in a different buffer formulation (ab124935).
Immunocytochemistry analysis of HepG2 (human hepatocellular carcinoma epithelial cell) labeling Hemopexin with purified ab124935 at 1/200 dilution (10 µg/ml). Cells were fixed with 100% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/1000 (2 µg/ml) was used as the secondary antibody. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.8 µg/ml) was used as counterstain. Nuclei were stained blue with DAPI. Negative control: PBS instead of the primary antibody.

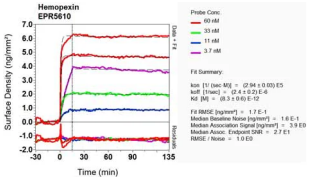


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hemopexin antibody [EPR5610] - BSA and Azide free (ab226099)

Hemopexin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Hemopexin antibody

This image is courtesy of a customer review submitted by Steffen Rickelt

ab124935 staining Hemopexin in human liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde, permeabilized with 0.2% Triton X-100 in PBS and blocked with 5% milk for 30 minutes at room temperature; antigen retrieval was by heat mediation in Tris pH 9.0. Samples were incubated with primary antibody (1/200 in PBS) for 16 hours at 4°C. An undiluted Biotin-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124935).



OI-RD Scanning - Anti-Hemopexin antibody [EPR5610] - BSA and Azide free (ab226099)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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