Anti-Hepcidin-25 antibody ab30760

Overview

Product name  Anti-Hepcidin-25 antibody
Description   Rabbit polyclonal to Hepcidin-25
Host species  Rabbit
Tested applications  Suitable for: ICC/IF, WB, IHC-Fr, IHC-P, ELISA
Species reactivity  Reacts with: Mouse, Rat, Human
Immunogen   Synthetic peptide conjugated to KLH derived from within residues 50 to the C-terminus of Human Hepcidin-25. Read Abcam’s proprietary immunogen policy (Peptide available as ab31875.)
Positive control  HAMP Human Full-length Recombinant Protein (Tagged) and LPS treated mouse serum.

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer  pH: 7.40
Preservative: 0.02% Sodium azide
 Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity  Immunogen affinity purified
Clonality  Polyclonal
Isotype  IgG

Applications

Our Abpromise guarantee covers the use of ab30760 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Liver-produced hormone that constitutes the main circulating regulator of iron absorption and distribution across tissues. Acts by promoting endocytosis and degradation of ferroportin, leading to the retention of iron in iron-exporting cells and decreased flow of iron into plasma. Controls the major flows of iron into plasma: absorption of dietary iron in the intestine, recycling of iron by macrophages, which phagocytose old erythrocytes and other cells, and mobilization of stored iron from hepatocytes (PubMed:22306005).


Highest expression in liver and to a lesser extent in heart and brain. Low levels in lung, tonsils, salivary gland, trachea, prostate gland, adrenal gland and thyroid gland. Secreted into the urine.

Belongs to the hepcidin family.

Secreted.

Hepcidin produces a propeptide of 84 amino acids that undergoes enzymatic cleavage into mature peptides of 20, 22, and 25 amino acids. Active peptides are rich in cysteines that form intramolecular bonds and stabilize the beta-sheet structure.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>1/100.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>1/10 - 1/100. Detects a band of approximately 32 kDa (predicted molecular weight: 3 kDa). Current batches of ab30760 gave a positive signal in LPS treated serum in WB at a dilution ranging from 1/10 and 1/100. We recommend customers to determine the optimal dilution for their experiments.</td>
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<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/200.</td>
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<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>Use a concentration of 1 - 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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<tr>
<td>ELISA</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Target</td>
<td></td>
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<tr>
<td>Function</td>
<td></td>
<td>Liver-produced hormone that constitutes the main circulating regulator of iron absorption and distribution across tissues. Acts by promoting endocytosis and degradation of ferroportin, leading to the retention of iron in iron-exporting cells and decreased flow of iron into plasma. Controls the major flows of iron into plasma: absorption of dietary iron in the intestine, recycling of iron by macrophages, which phagocytose old erythrocytes and other cells, and mobilization of stored iron from hepatocytes (PubMed:22306005). Has strong antimicrobial activity against E.coli ML35P N.cinerea and weaker against S.epidermidis, S.aureus and group b streptococcus bacteria. Active against the fungus C.albicans. No activity against P.aeruginosa (PubMed:11113131, PubMed:11034317).</td>
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<tr>
<td>Tissue specificity</td>
<td></td>
<td>Highest expression in liver and to a lesser extent in heart and brain. Low levels in lung, tonsils, salivary gland, trachea, prostate gland, adrenal gland and thyroid gland. Secreted into the urine.</td>
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<td>Involvement in disease</td>
<td></td>
<td>Hemochromatosis 2B</td>
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<tr>
<td>Sequence similarities</td>
<td></td>
<td>Belongs to the hepcidin family.</td>
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<tr>
<td>Cellular localization</td>
<td></td>
<td>Secreted.</td>
</tr>
<tr>
<td>Form</td>
<td></td>
<td>Hepcidin produces a propeptide of 84 amino acids that undergoes enzymatic cleavage into mature peptides of 20, 22, and 25 amino acids. Active peptides are rich in cysteines that form intramolecular bonds and stabilize the beta-sheet structure</td>
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<tr>
<td>Images</td>
<td></td>
<td>2</td>
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</tbody>
</table>
Hepcidin-25 expression in rat liver cells using Rabbit polyclonal to Hepcidin-25 (ab30760). Immunohistochemistry was performed on PFA fixed cells, ab30760 was used at 1/1000 incubated overnight at RT. Haemotoxylin is used as a nuclear counterstain in this image.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hepcidin-25 antibody (ab30760)**  
This image is courtesy of Ruma Raha-Chowdhury (Cambridge University)

**Western blot - Anti-Hepcidin-25 antibody (ab30760)**  
This image is courtesy of Ruma Raha-Chowdhury (Cambridge University)

**Immunocytochemistry/ Immunofluorescence - Anti-Hepcidin-25 antibody (ab30760)**  
This image is courtesy of an Abreview submitted by Ruma Raha-Chowdhury

Anti-Hepcidin-25 antibody (ab30760) + LPS treated mouse serum

**Secondary**
Donkey Polyclonal to Anti Rabbit IgG

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 3 kDa

ab30760 staining cultured rat astrocytes by ICC/IF. The cultured cells were fixed with 4% paraformaldehyde for 5 minutes and blocked with 10% donkey serum in 0.1% PBS-0.3% TritonX for 30 minutes at 24°C. The cultured cells were then stained with ab30760 at 1/100 in 0.3% TritonX with 0.1% PBS and 10% donkey serum for 24h at 4°C. An Alexa Fluro 488 donkey anti-rabbit polyclonal antibody at 1/1000 was used as the secondary antibody. Nuclei were stained with 1.43µM Hoechst and can be observed in blue. Hepcidin expression visible perinuclearly, mainly in the lysosomes.
Immunohistochemistry (Frozen sections) - Anti-Hepcidin-25 antibody (ab30760)

This image is courtesy of an anonymous Abreview ab30760 at a 1/200 dilution staining Hepcidin-25 in human artery tissue sections by Immunohistochemistry (frozen sections) incubated for 24 hours at 20°C. Acetone fixed. Blocked with 0.5% BSA for 10 minutes at 20°C. Secondary used at 7µg/ml goat anti-rabbit IgG (H+L) conjugated to biotin. Immunoperoxydase system and AEC were used to develop the color.

Western blot - Anti-Hepcidin-25 antibody (ab30760)

Anti-Hepcidin-25 antibody (ab30760) at 1 µg/ml + HAMP Human Full-length Recombinant Protein (Tagged) at 0.1 µg

Secondary
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 3 kDa
Observed band size: 32 kDa

why is the actual band size different from the predicted?

Exposure time: 3 minutes

ab30760 was tested against Human HAMP Full-length Recombinant Protein (Tagged) predicted to run at 32kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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