

# Product Datasheet

## PEX5 Antibody - BSA Free NBP2-38443

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP2-38443**

PEX5 Antibody - BSA Free

**Product Information**

|                      |  |
|----------------------|--|
| <b>Unit Size</b>     | 0.1 ml   |
| <b>Concentration</b> | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services. |
| <b>Storage</b>       | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.                           |
| <b>Clonality</b>     | Polyclonal   |
| <b>Preservative</b>  | 0.02% Sodium Azide   |
| <b>Isotype</b>       | IgG  |
| <b>Purity</b>        | Immunogen affinity purified  |
| <b>Buffer</b>        | PBS (pH 7.2) and 40% Glycerol  |

**Product Description**

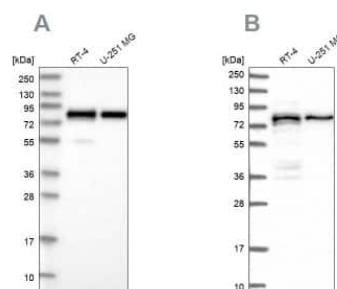
|                         |   |
|-------------------------|---|
| <b>Host</b>             | Rabbit  |
| <b>Gene ID</b>          | 5830  |
| <b>Gene Symbol</b>      | PEX5  |
| <b>Species</b>          | Human, Mouse  |
| <b>Reactivity Notes</b> | Mouse reactivity reported in scientific literature (PMID:31996685).   |
| <b>Immunogen</b>        | This antibody was developed against a recombinant protein corresponding to amino acids:<br>RAQAEQWAAEFIQQGGTSDAWVDQFTRPVNTSALDMEFERAKSAIESDVDFW<br>DKLQAELEEMAKRDAAHPWLSYDDLTSATYDKGYQFEEEN |

**Product Application Details**

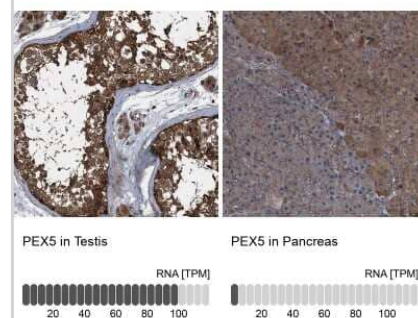
|                              |   |
|------------------------------|---|
| <b>Applications</b>          | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated   |
| <b>Recommended Dilutions</b> | Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:50 - 1:200, Knockdown Validated |
| <b>Application Notes</b>     | For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100.  |

**Images**

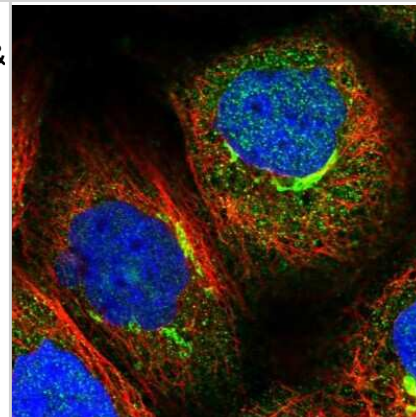
Western Blot: PEX5 Antibody [NBP2-38443] - Analysis using Anti-PEX5 antibody NBP2-38443 (A) shows similar pattern to independent antibody NBP1-87185 (B).



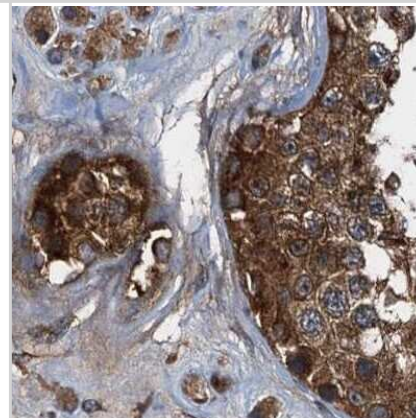
Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining in human testis and pancreas tissues using anti-PEX5 antibody. Corresponding PEX5 RNA-seq data are presented for the same tissues.



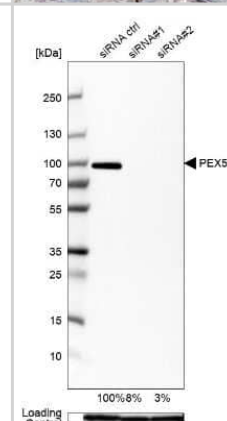
Immunocytochemistry/Immunofluorescence: PEX5 Antibody [NBP2-38443] - Staining of human cell line A-431 shows localization to cytosol & the Golgi apparatus. Antibody staining is shown in green.



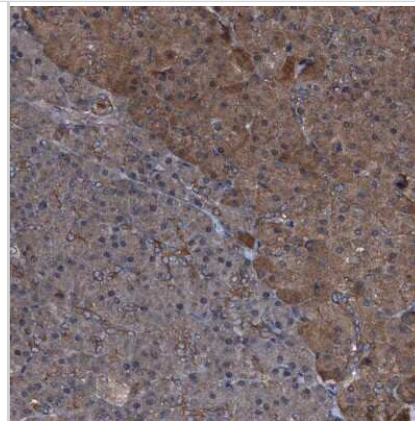
Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human testis using Anti-PEX5 antibody NBP2-38443.



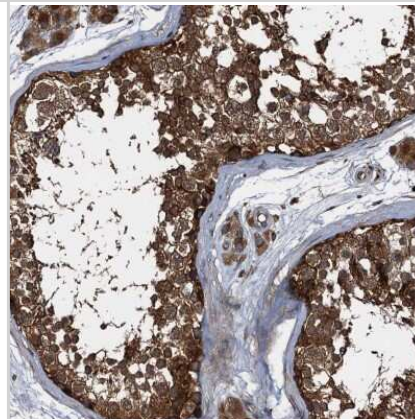
Western Blot: PEX5 Antibody [NBP2-38443] - Analysis in U2OS cells transfected with control siRNA, target specific siRNA probe #1 and #2, using Anti-PEX5 antibody. Remaining relative intensity is presented. Loading control: Anti-GAPDH.



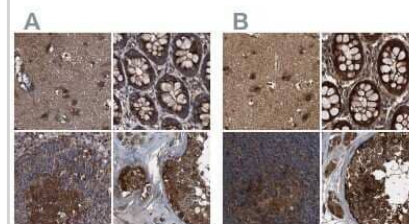
Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human pancreas shows low expression as expected.



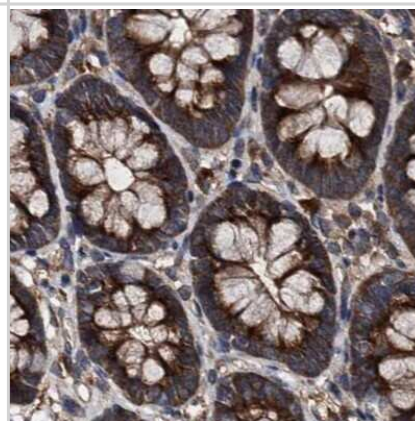
Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human testis shows high expression.



Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human cerebral cortex, colon, lymph node and testis using Anti-PEX5 antibody NBP2-38443 (A) shows similar protein distribution across tissues to independent antibody NBP1-87185 (B).

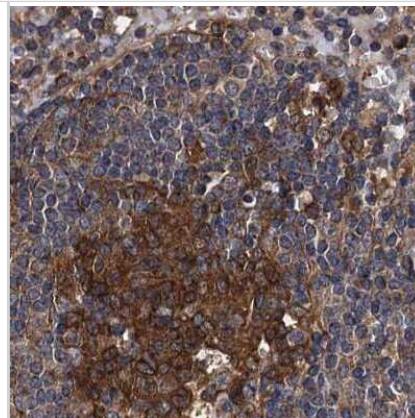


Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human colon.





Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human lymph node.



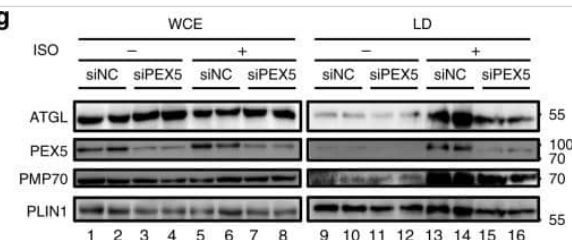
Immunohistochemistry-Paraffin: PEX5 Antibody [NBP2-38443] - Staining of human cerebral cortex.



Western Blot: PEX5 Antibody [NBP2-38443]: PEX5 Antibody [NBP2-38443] - PEX5 escorts ATGL to LD to mediate fasting-induced lipolysis. Western blot of whole cell extracts (WCE) or LD fractionation from adipocytes transfected with siNC or siPEX5. 30 ug of protein from WCE; 20 ug of protein from LD fraction. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41467-019-14176-0>), licensed under a CC-BY license.



Western Blot: PEX5 Antibody [NBP2-38443] - PEX5 escorts ATGL to LD to mediate fasting-induced lipolysis. a Relative glycerol release from adipocytes transfected with negative control (NC) or PEX5 siRNA (siPEX5) for 48 h. n = 3 for each group. b Relative glycerol release from adipocytes transfected with siNC or siPEX5 for 48 h together in the absence or presence of WY-14643 (10  $\mu$ M) treatment. n = 3 for each group. c Relative glycerol release from adipocytes transfected with siNC or siACOX1 for 48 h. n = 3 for each group. d, e Representative SIM images & quantification analysis of recruited ATGL to LDs in adipocytes immunostained with endogenous PLIN1 (red) & ATGL (green). Cells were transfected with siNC or siPEX5. n = 10 cells for siNC group; n = 15 cells treated with ISO; n = 12 cells for siPEX5 group; n = 13 cells for siPEX5 treated with ISO. Quantification of ATGL recruitment to LDs was measured using imageJ software. f Representative SIM z-section images (left) & fluorescence intensity profiles from the indicated line scans (right). Below 0.2 fluorescence intensity indicates background fluorescence signal. LD areas are highlighted in yellow. g Western blot of whole cell extracts (WCE) or LD fractionation from adipocytes transfected with siNC or siPEX5. 30  $\mu$ g of protein from WCE; 20  $\mu$ g of protein from LD fraction. h Quantification of ATGL in LDs normalized to PLIN1 from g. n = 4 independent experiments. CON control, ISO isoproterenol. Cells were treated with ISO (1  $\mu$ M) for 1 h. All scale bars, 10  $\mu$ m. Data represent the mean  $\pm$  SD; \*P < 0.05, \*\*\*P < 0.01 in two-way ANOVA followed by Turkey's post-hoc test. n.s., not statistically significant. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31996685>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Kong J, Ji Y, Jeon YG et al. Spatiotemporal contact between peroxisomes and lipid droplets regulates fasting-induced lipolysis via PEX5 Nat Commun 2020-01-29 [PMID: 31996685] (WB, Human, Mouse)



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|               |   |
|---------------|---|
| NBP2-38443PEP | PEX5 Recombinant Protein Antigen                    |
| HAF008        | Goat anti-Rabbit IgG Secondary Antibody [HRP]       |
| NB7160        | Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP] |
| NBP2-24891    | Rabbit IgG Isotype Control                          |

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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