

Product Datasheet

OXPAT Antibody - BSA Free

NB110-60509

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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NB110-60509

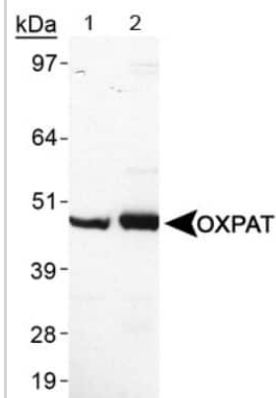
OXPAT Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	50 kDa
Product Description	
Host	Rabbit
Gene ID	440503
Gene Symbol	PLIN5
Species	Human, Mouse, Porcine, Bovine
Reactivity Notes	Porcine reactivity reported in scientific literature (PMID: 29094660). Immunogen displays the following percentage of sequence identity for non-tested species: sheep (94%), rat (84%).
Immunogen	A synthetic peptide made to a region of the human OXPAT protein, within residues 300-400. [UniProt# Q00G26]
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.5-2.0 ug/ml, Simple Western 10 ug/ml, Immunohistochemistry 1.0-5.0 ug/ml, Immunocytochemistry/ Immunofluorescence reported in scientific literature (PMID 26096040), Immunohistochemistry-Paraffin 1.0-5.0 ug/ml, Immunohistochemistry-Frozen reported in scientific literature (PMID 24648545)
Application Notes	<p>In WB a band can be seen at approx. 50 kDa, representing the OXPAT protein.</p> <p>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.</p> <p>See Simple Western Antibody Database for Simple Western validation: Tested in Human Heart and Mouse Heart lysate 0.5 mg/mL, separated by Size, antibody dilution of 10 ug/mL. Separated by Size-Wes, Sally Sue/Peggy Sue.</p> <p>The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.</p>

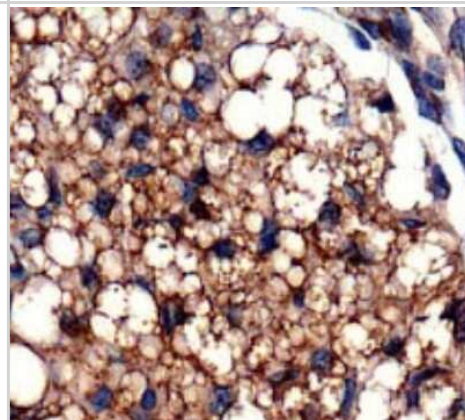


Images

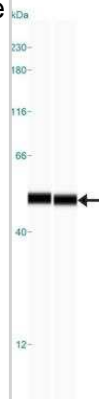
Western Blot: OXPAT Antibody [NB110-60509] - Detection of OXPAT in human (lane 1) and mouse (lane 2) heart lysate.



Immunohistochemistry: OXPAT Antibody [NB110-60509] - Staining of OXPAT in paraffin embedded mouse fat.



Simple Western: OXPAT Antibody [NB110-60509] - Simple Western lane view shows a specific band for OXPAT in 0.5 mg/ml of Human Heart (left) and Mouse Heart (right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Publications

Miao H, Li B, Wang Z et al. Lipidome Atlas of the Developing Heart Uncovers Dynamic Membrane Lipid Attributes Underlying Cardiac Structural and Metabolic Maturation Research (Wash D C) 2022-12-19 [PMID: 39290970]

Zhao Y, Albrecht E, Li Z et al. Distinct Roles of Perilipins in the Intramuscular Deposition of Lipids in Glutamine-Supplemented, Low-, and Normal-Birth-Weight Piglets Frontiers in Veterinary Science 2021-06-21 [PMID: 34235195] (Immunohistochemistry)

Miao H, Li B, Wang Z et al. Lipidome Atlas of the Developing Heart Uncovers Dynamic Membrane Lipid Attributes Underlying Cardiac Structural and Metabolic Maturation Research 2022-01-01 (WB, Mouse)

Details:

Dilution used in WB 1:500

Gan X, Zhao J, Chen Y et al. Plin5 inhibits proliferation and migration of vascular smooth muscle cell through interacting with PGC-1alpha following vascular injury Bioengineered 2022-04-01 [PMID: 35470759] (WB, IP, Mouse)

Antony R, Aby K, Gao H et al. UCHL1 Regulates Lipid and Perilipin 2 Level in Skeletal Muscle Frontiers in physiology 2022-04-07 [PMID: 35464088] (WB, Mouse)

Dahl N Development of skeletal muscle and adipose tissues in neonatal dairy calves upon a maternal supplementation with essential fatty acids and conjugated linoleic acids Thesis 2022-01-01

Fillmore N, Hou V, Sun J et al. Cardiac specific knock-down of peroxisome proliferator activated receptor alpha prevents fasting-induced cardiac lipid accumulation and reduces perilipin 2 PloS one 2022-03-08 [PMID: 35259201] (WB, Mouse)

Vigelso, A, Prats, C Et al. Higher muscle content of perilipin 5 and endothelial lipase protein in trained than untrained middle-aged men. Physiol Res 2016-06-20 [PMID: 26447519] (FLOW, Human)

Details:

Citation using the PE/Cy7 format of this antibody.

Pantha R, Lee J, Bae J et al. LRH-1 Ameliorates Hepatic Triglyceride Accumulation via Regulation of Perilipin 5 in the Liver Preprints 2021-02-12 (ICC/IF, Mouse)

Larsen Steen, Vigelso Andreas, Dandanell Sune et al. Simvastatin-Induced Insulin Resistance May Be Linked to Decreased Lipid Uptake and Lipid Synthesis in Human Skeletal Muscle: the LIFESTAT Study. J Diabetes Res. 2018-09-12 [PMID: 30276217] (WB, Human)

Zhong W, Fan B, Cong H et al. Oleic acid-induced perilipin 5 expression and lipid droplets formation are regulated by the PI3K/PPAR alpha pathway in HepG2 cells Appl Physiol Nutr Metab 2019-08-01 [PMID: 31274012]

Kristensen MD, Petersen SM, Moller KE et al. Obesity leads to impairments in the morphology and organization of human skeletal muscle lipid droplets and mitochondrial networks, which are resolved with gastric bypass surgery-induced improvements in insulin sensitivity Acta Physiol (Oxf) 2018-05-23 [PMID: 29791782] (Human)

More publications at <http://www.novusbio.com/NB110-60509>



Procedures

Western Blot protocol for OXPAT Antibody (NB110-60509)

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% non-fat dry milk + 1% BSA in TBS, overnight at 4C.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-OXPAT primary antibody (NB 110-60509) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





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Products Related to NB110-60509

NB110-60509PEP	XPAT Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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