Product Datasheet

Abhd5 Antibody - BSA Free
NB110-41576

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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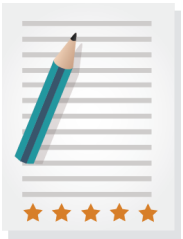
Updated 12/20/2023 v.20.1



NB110-41576

Abhd5 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

Product Description

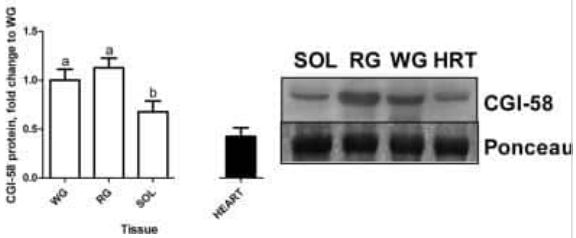
Host	Rabbit
Gene ID	51099
Gene Symbol	ABHD5
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID:23878361)
Immunogen	A synthetic peptide made to an internal region within residues 200-300 of the human Abhd5 protein. [Swiss-Prot# Q8WTS1]

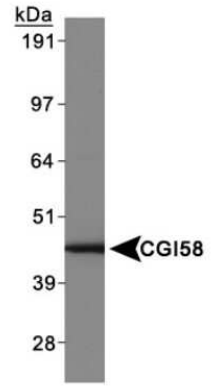
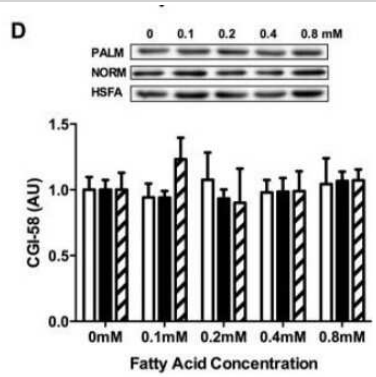
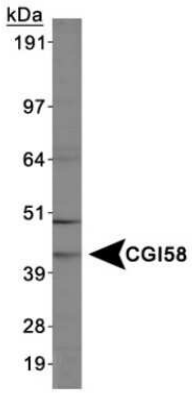
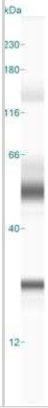
Product Application Details

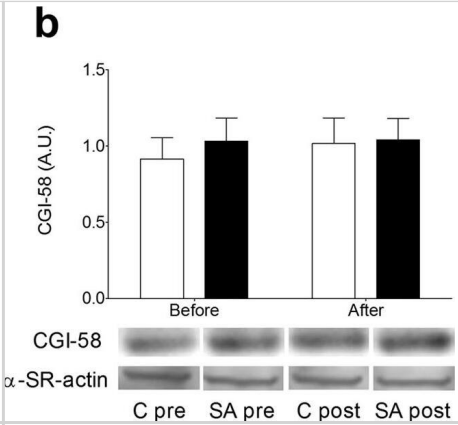
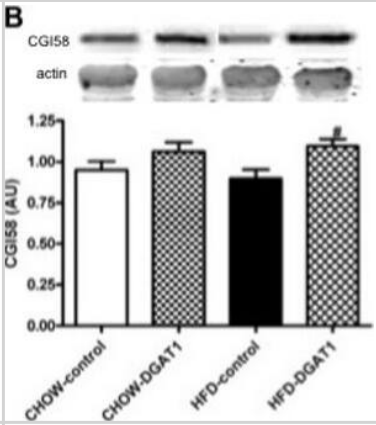
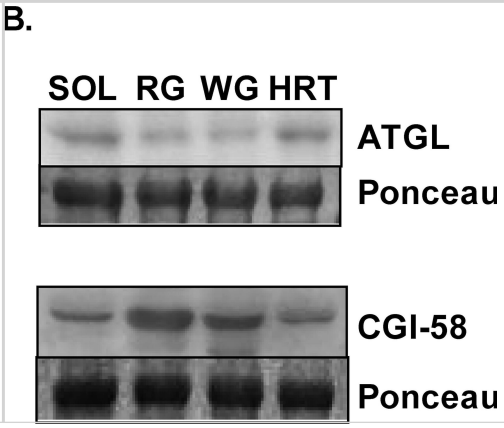
Applications	Western Blot, Simple Western
Recommended Dilutions	Western Blot 1:500, Simple Western 1:1000
Application Notes	A band is seen at ~43 kDa in Western Blot. In ICC/IF cytoplasmic staining was observed in HeLa cells. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

Western Blot: Abhd5 Antibody [NB110-41576] - CGI-58 western blot protein bands compared to representative Ponceau bands as equal loading control. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0120136), licensed under a CC-BY license.



Western Blot: Abhd5 Antibody [NB110-41576] - Abhd5 overexpression lysates (NBL1-07199).	
Western Blot: Abhd5 Antibody [NB110-41576] - Factors regulating lipid storage and breakdown in C2C12 muscle cells.Muscle cells were incubated with PALM (open), NORM (filled), or HSFA (hatched). Protein abundance of ATGL. In all figure panels data are expressed relative to a no fatty acid control condition (0mM). In panel B, #P<0.05 for a main effect of HSFA vs. PALM and NORM. Representative blots are inset above each figure panel. GPAT, glycerol-3-phosphate acyltransferase; DGAT, diacylglycerol acyltransferase; ATGL, adipose triacylglycerol lipase; CGI-58, comparative gene identification 58; HSL, hormone sensitive lipase; AU, arbitrary units. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0120871), licensed under a CC-BY license.	
Western Blot: Abhd5 Antibody [NB110-41576] - MCF7 cell lysates.	
Simple Western: Abhd5 Antibody [NB110-41576] - Image shows a specific band for Abhd5 in 0.5 mg/mL of MCF-7 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	

Protein content of important players involved in lipid droplet dynamics in Caucasian and South Asian subjects before and after a 5-day HFHC-diet.(a) ATGL, (b) CGI-58, (c) PLIN2, (d) PLIN3 and (e) PLIN5 protein content. Data are presented as mean ± SEM and were statistically analyzed with a Repeated Measures ANOVA; *P < 0.05 for diet effect, #P < 0.05 for group effect.	
The turnover of DAG and TAG is increased in the DGAT1 overexpressing TA muscle.(A) Western blotting of ATGL, (B) CGI58 (C) and ADRP in rat TA muscle. Data are expressed as mean ± SEM (n= 10–12). # P<0.05 HFD-DGAT1 vs. HFD-control.	
B). ATGL and CGI-58 western blot protein bands compared to representative Ponceau bands as equal loading control. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0120136), licensed under a CC-BY licence.	

Publications

Bao X, Ma X, Huang R et al. Knockdown of hepatocyte Perilipin-3 mitigates hepatic steatosis and steatohepatitis caused by hepatocyte CGI-58 deletion in mice Journal of Molecular Cell Biology 2022-12-26 [PMID: 36107452] (B/N, WB)

Mahalingam S, Bellamkonda R, Arumugam MK et al. Glucagon-like peptide 1 receptor agonist, exendin-4, reduces alcohol-associated fatty liver disease Biochemical pharmacology 2023-05-18 [PMID: 37209859] (WB, Rat)

Chrzanowski-Smith OJ, Edinburgh RM, Smith E et al. Resting skeletal muscle PNPLA2 (ATGL) and CPT1B are associated with peak fat oxidation rates in men and women but do not explain observed sex differences Experimental physiology 2021-03-06 [PMID: 33675111] (WB, Human)

Fievet A, Bellanger D, Rieunier G et al. Assessment of the Main Compounds of the Lipolytic System in Treadmill Running Rats: Different Response Patterns between the Right and Left Ventricle Int J Mol Sci 2019-05-24 [PMID: 31137663] (WB, Rat)

Daemen S, Gemmink A, Brouwers B et al. Distinct lipid droplet characteristics and distribution unmask the apparent contradiction of the athlete's paradox Molecular Metabolism 2018-08-01 [PMID: 30174227] (WB, Human)

Rogne M, Chu DT, Kuntziger TM et al. OPA1-anchored PKA phosphorylates perilipin 1 on S522 and S497 in adipocytes differentiated from human adipose stem cells. Mol. Biol. Cell 2018-04-24 [PMID: 29688805] (Human)

Perreault L, Newsom SA, Strauss A, Kerege A. Intracellular localization of diacylglycerols and sphingolipids influences insulin sensitivity and mitochondrial function in human skeletal muscle. JCI Insight. 2018-02-08 [PMID: 29415895] (WB, Human)

Snook LA, Trottier SK, Worndl EA et al. Prior Endurance Training Enhances Beta-Adrenergic Signaling in Epididymal Adipose from Mice Fed a High-Fat Diet Obesity (Silver Spring) 2017-10-01 [PMID: 28857453] (Mouse)

Gemmink A, Bakker LE, Guigas B et al. Lipid droplet dynamics and insulin sensitivity upon a 5-day high-fat diet in Caucasians and South Asians. Sci Rep. 2017-02-14 [PMID: 28195217] (WB, Human)

Turnbull PC, Longo AB, Ramos SV et al. Increases in skeletal muscle ATGL and its inhibitor G0S2 following 8 weeks of endurance training in metabolically different rat skeletal muscles. Am. J. Physiol. Regul. Integr. Comp. Physiol. 2015-10-28 [PMID: 26511521] (WB, Rat)

Sitnick MT, Basantani MK, Cai L et al. Skeletal muscle triacylglycerol hydrolysis does not influence metabolic complications of obesity. Diabetes 2013-10-01 [PMID: 23835334] (Mouse)

Turnbull PC, Ramos SV, MacPherson RE et al. Characterization of lipolytic inhibitor G(0)/G(1) switch gene-2 protein (G0S2) expression in male Sprague-Dawley rat skeletal muscle compared to relative content of adipose triglyceride lipase (ATGL) and comparitive gene identification-58 (CGI-58). PLoS One 2015-01-01 [PMID: 25811590] (WB, Rat)

More publications at http://www.novusbio.com/NB110-41576

Procedures

Western Blot protocol for Abhd5 Antibody (NB110-41576)

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, 1 hour at room temperature.
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-CGI58 primary antibody (NB 110-41576) in blocking buffer and incubate 2 hours 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 manufacturer's 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 manufacturer's 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.

Immunocytochemistry/Immunofluorescence protocol for Abhd5 Antibody (NB110-41576)

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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