Product Datasheet

ACAT1 Antibody - BSA Free
NBP1-89285

Unit Size: 0.1 ml

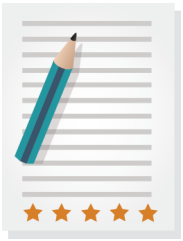
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 5

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-89285

Updated 4/21/2025 v.20.1



NBP1-89285

ACAT1 Antibody - BSA Free

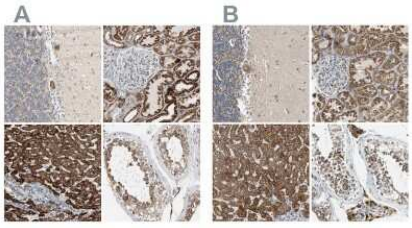
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium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

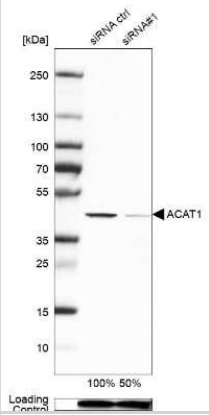
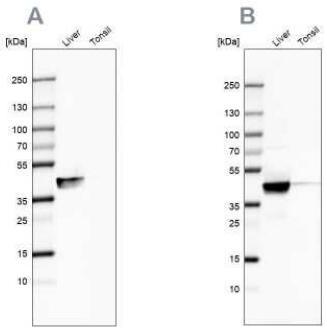
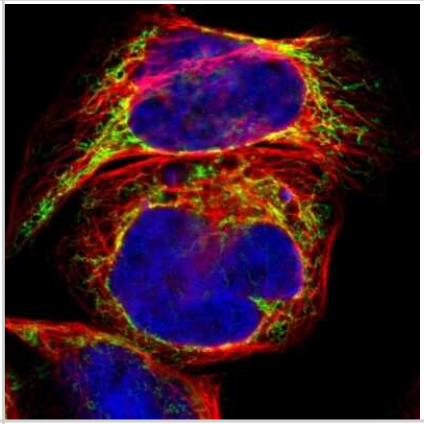
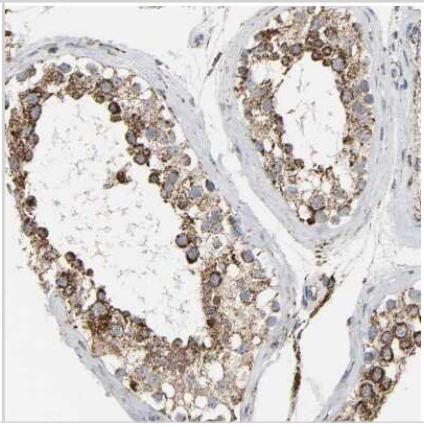
Product Description	
Host	Rabbit
Gene ID	38
Gene Symbol	ACAT1
Species	Human, Mouse, Rat
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: VSATRTPIGSFLGSLSLLPATKLGSIAIQGAIEKAGIPKEEVKEAYMGNVLQGGE GQAPTRQAVLGAGLPISTPCTTINKVCASGMKAIMMASQSLMCGHQDVMVAG GMESMSNVPYVMNRGSTPYGGVKLEDLIVKDGLTD

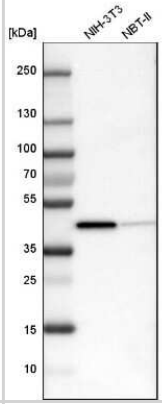
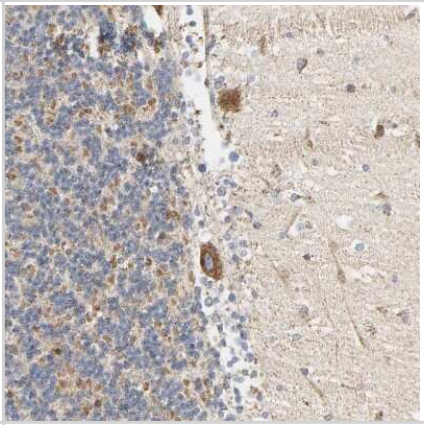
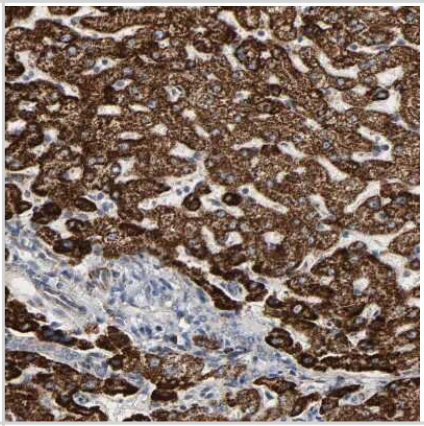
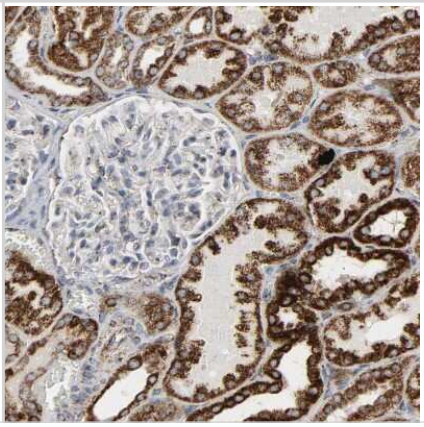
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:200 - 1:500, Knockout Validated, Knockdown Validated
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

Images

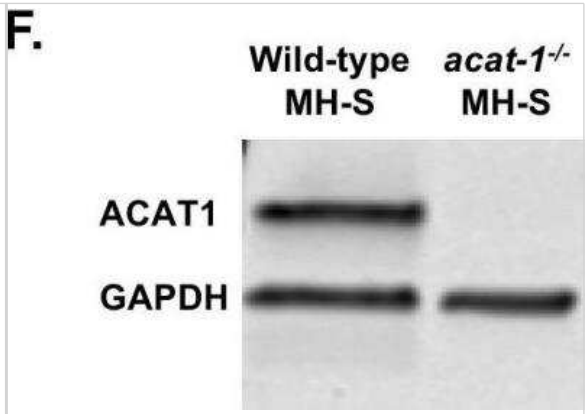
Immunohistochemistry-Paraffin: ACAT1 Antibody [NBP1-89285] - Staining of human cerebellum, kidney, liver and testis using Anti-ACAT1 antibody NBP1-89285 (A) shows similar protein distribution across tissues to independent antibody NBP1-89284 (B).



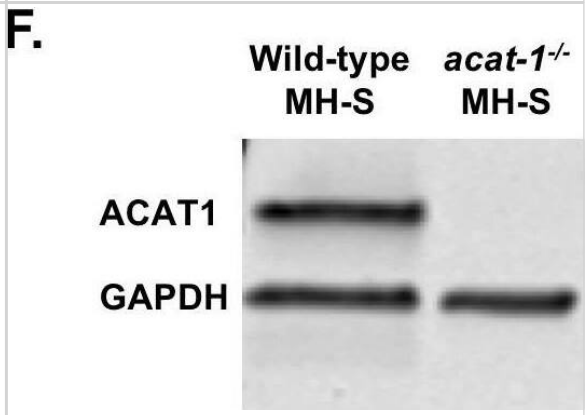
Western Blot: ACAT1 Antibody [NBP1-89285] - Analysis in Caco-2 cells transfected with control siRNA, target specific siRNA probe #1, using Anti-ACAT1 antibody. Remaining relative intensity is presented. Loading control: Anti-PPIB.	
Western Blot: ACAT1 Antibody [NBP1-89285] - Analysis using Anti-ACAT1 antibody NBP1-89285 (A) shows similar pattern to independent antibody NBP1-89284 (B).	
Immunocytochemistry/Immunofluorescence: ACAT1 Antibody [NBP1-89285] - Staining of human cell line A-431 shows localization to mitochondria. Antibody staining is shown in green.	
Immunohistochemistry-Paraffin: ACAT1 Antibody [NBP1-89285] - Staining of human testis shows strong positivity in mitochondria in cells in seminiferous ducts.	

Western Blot: ACAT1 Antibody [NBP1-89285] - Analysis in mouse cell line NIH-3T3 and rat cell line NBT-II.	
Immunohistochemistry-Paraffin: ACAT1 Antibody [NBP1-89285] - Staining of human cerebellum shows strong positivity in mitochondria in purkinje cells.	
Immunohistochemistry-Paraffin: ACAT1 Antibody [NBP1-89285] - Staining of human liver shows strong positivity in mitochondria in hepatocytes.	
Immunohistochemistry-Paraffin: ACAT1 Antibody [NBP1-89285] - Staining of human kidney shows strong positivity in mitochondria in cells in tubules.	

Western Blot: ACAT1 Antibody [NBP1-89285] - ACAT1 protein expression in wild-type and acat-1-/- macrophages. Cell lysates were immunoblotted and ACAT1 protein levels were compared with GAPDH as loading control. CRISPR/Cas-9 used to knockout acat-1. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/29390006/) licensed under a CC-BY license.



Western Blot: ACAT1 Antibody [NBP1-89285] - Blocking LD formation increases C. burnetii growth.Wild-type C. burnetii growth in infected MH-S cells treated with different inhibitors was measured at 2 & 4 days post-infection by FFU assay. A-D) Representative images for wild-type MH-S macrophages treated with inhibitors, fixed, stained for PLIN2 (LDs; green) & C. burnetii (red) & imaged day 4 post-treatment at 100X. Scale bar = 10 µm. E) Growth while inhibiting LD formation with triacsin C (10 µM) in wild-type MH-S macrophages. Error bars represent the mean of 4 independent experiments +/- SEM. ** = p <0.01 compared to vehicle-treated cells as determined by two-way ANOVA with Bonferroni post-hoc test. F) ACAT1 protein expression in wild-type & acat-1-/- macrophages. Cell lysates were immunoblotted & ACAT1 protein levels were compared with GAPDH as loading control. G) C. burnetii growth in vehicle-treated wild-type & acat-1-/- MH-S macrophages & (H) T863-treated acat-1-/- MH-S macrophages. Error bars represent the mean of at least 3 independent experiments +/- SEM., * = p<0.05, *** = p <0.001 as determined by two-way ANOVA with Bonferroni post-hoc test. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0192215), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Janikiewicz J, Dobosz AM, Majzner K et al. Stearoyl-CoA desaturase 1 deficiency exacerbates palmitate-induced lipotoxicity by the formation of small lipid droplets in pancreatic ?-cells Biochimica et biophysica acta. Molecular basis of disease 2023-04-11 [PMID: 37054998]

Details:
Tested with INS-1E cells

Mulye M, Zapata B, Gilk SD et al. Altering lipid droplet homeostasis affects Coxiella burnetii intracellular growth PLoS One. 2018-01-31 [PMID: 29390006] (WB, Mouse)

Saadane A, Mast N, Dao T et al. Retinal hypercholesterolemia triggers cholesterol accumulation and esterification in photoreceptor cells. J. Biol. Chem. 2016-08-11 [PMID: 27514747] (WB, IF/IHC, Mouse)

Sanchez-Alvarez R, Martinez-Outschoorn UE, Lin Z et al. Ethanol exposure induces the cancer-associated fibroblast phenotype and lethal tumor metabolism: Implications for breast cancer prevention. Cell Cycle 2013-01-15 [PMID: 23257780]

Stadler C, Hjelmare M, Neumann B et al. Systematic validation of antibody binding and protein subcellular localization using siRNA and confocal microscopy. J Proteomics 2012-04-03 [PMID: 22361696]

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP1-89285

NBP1-89285PEP	ACAT1 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

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-89285

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications