Product Datasheet

ATP6V0A1 Antibody - BSA Free
NBP1-89342

Unit Size: 0.1 ml

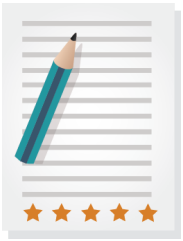
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 16

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-89342

Updated 2/21/2025 v.20.1



NBP1-89342

ATP6V0A1 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), 40% Glycerol

Product Description

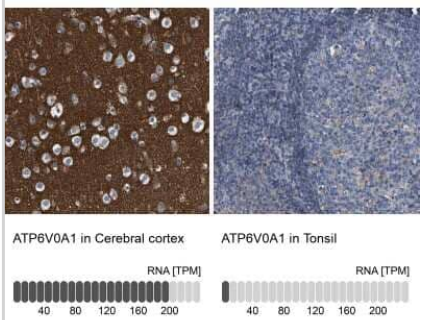
Host	Rabbit
Gene ID	535
Gene Symbol	ATP6V0A1
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28266544).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: VQFRDLNPDVNVFQRKFVNEVRRCEEMDRKLRFVEKEIRKANIPIMDTGENPE VPFPRDMIDLEANFEKIENELKEINTNQEALKRNFLELTELK

Product Application Details

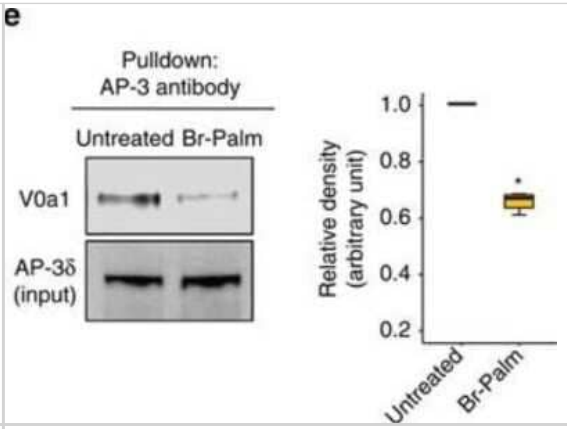
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot Image collected and cropped by CiteAb from the following publication (http://www.nature.com/doifinder/10.1038/ncomms14612), licensed under a CC-BY license., Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25 - 2 ug/mL, Immunoprecipitation Reported in scientific literature (PMID: 28266544), Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

Images

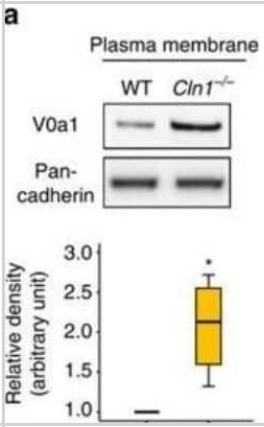
Immunohistochemistry-Paraffin: ATP6V0A1 Antibody [NBP1-89342] - Analysis in human cerebral cortex and tonsil tissues. Corresponding ATP6V0A1 RNA-seq data are presented for the same tissues.



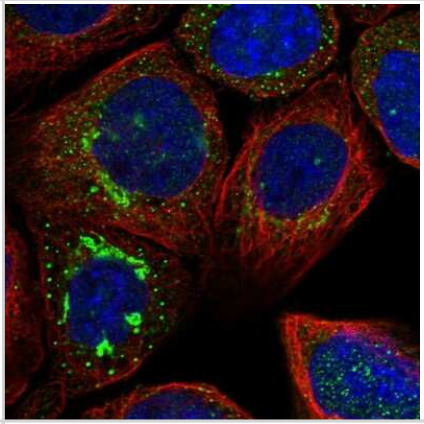
Western Blot: ATP6V0A1 Antibody [NBP1-89342] - In Cln1-/- mice V0a1 is misrouted to plasma membrane preventing its interaction with AP-3. Pull-down assay with AP-3 antibody using total lysates from untreated (lane 1) and bromopalmitate-treated (lane 2) WT brain slices to detect V0a1 and its densitometric quantitation (n=4, *P<0.05). HEK-293 cells were transfected with WT GFP-V0a1 and GFP-V0a1-Cys25Ser mutant construct, and pull-down experiments were conducted with AP-3 antibody to detect GFP-V0a1,*P<0.05(n=4). Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms14612), licensed under a CC-BY license.



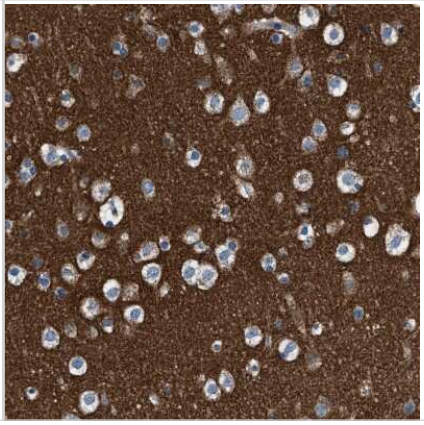
Western Blot: ATP6V0A1 Antibody [NBP1-89342] - In Cln1-/- mice V0a1 is misrouted to plasma membrane preventing its interaction with AP-3. Western blot analysis and densitometric quantitation of V0a1 in isolated plasma membrane fraction from WT and Cln1-/- mouse brain (n=4, *P<0.05). Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms14612), licensed under a CC-BY license.

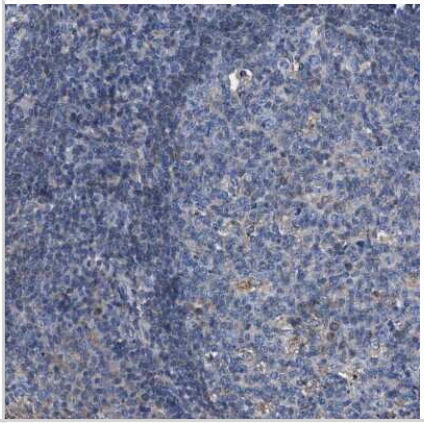
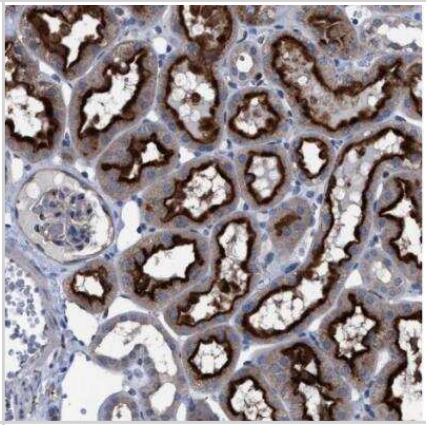
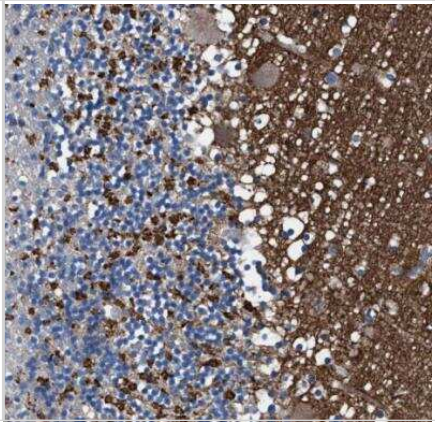


Immunocytochemistry/Immunofluorescence: ATP6V0A1 Antibody [NBP1-89342] - Staining of human cell line A-431 shows localization to the Golgi apparatus & vesicles. Antibody staining is shown in green.

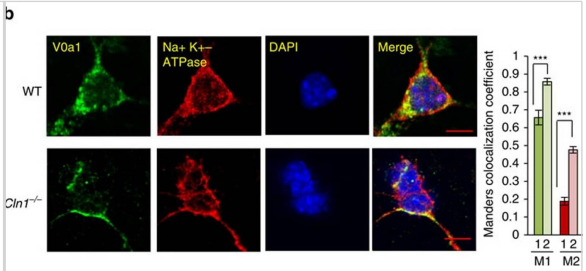


Immunohistochemistry-Paraffin: ATP6V0A1 Antibody [NBP1-89342] - Staining of human cerebral cortex shows strong cytoplasmic positivity in neuropil.

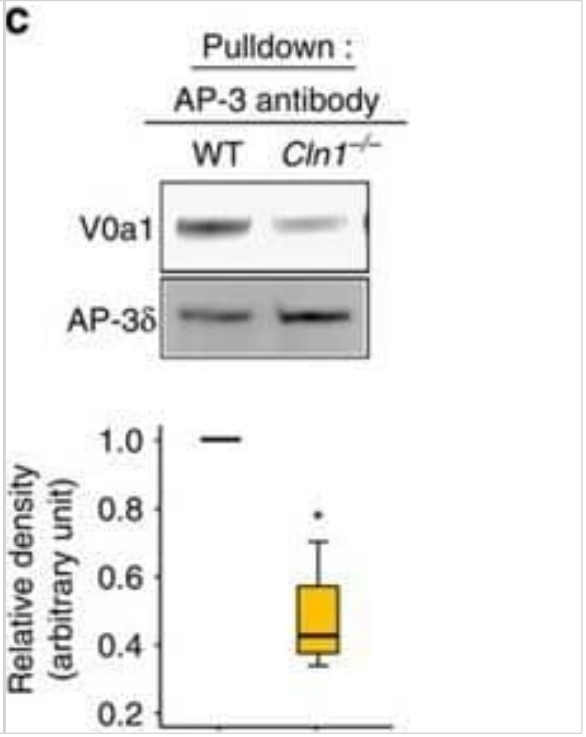


Immunohistochemistry-Paraffin: ATP6V0A1 Antibody [NBP1-89342] - Staining of human tonsil shows low expression as expected.	
Immunohistochemistry-Paraffin: ATP6V0A1 Antibody [NBP1-89342] - Staining of human kidney shows strong cytoplasmic postivity in cells in tubules.	
Immunohistochemistry-Paraffin: ATP6V0A1 Antibody [NBP1-89342] - Staining of human cerebellum shows strong cytoplasmic postivity in cells in granular layer.	

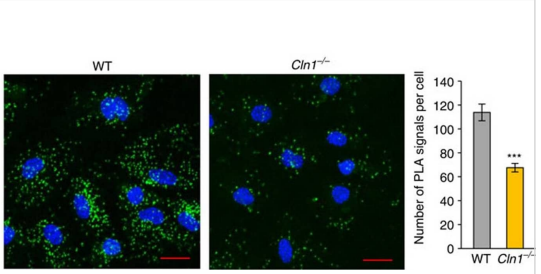
Immunocytochemistry/ Immunofluorescence: ATP6V0A1 Antibody [NBP1-89342] - In Cln1−/− mice V0a1 is misrouted to plasma membrane preventing its interaction with AP-3.(a) Western blot analysis & densitometric quantitation of V0a1 in isolated plasma membrane fraction from WT & Cln1−/− mouse brain (n=4, *P<0.05). (b) Localization of V0a1 in the plasma membrane in WT & Cln1−/− neurons using Na+, K+-ATPase as membrane marker. Colocalization between V0a1 & Na+, K+-ATPase was assessed using the Manders' colocalization coefficients M1 & M2 (n=18 for WT & n=22 for Cln1−/−, ***P<0.001; scale bars, 5 µm. (c) Pull-down assay with AP-3 antibody detects V0a1 in total brain lysates from WT & Cln1−/− mouse brain (n=4, *P<0.05). (d) Confocal imaging of PLA reaction showing V0a1 & AP-3δ interaction in neurons isolated from WT & Cln1−/−mouse brain (n=188 for WT & n=158 for Cln1−/−, ***P<0.001); scale bars, 20 µm. (e) Pull-down assay with AP-3 antibody using total lysates from untreated (lane 1) & bromopalmitate-treated (lane 2) WT brain slices to detect V0a1 & its densitometric quantitation (n=4, *P<0.05). (f) HEK-293 cells were transfected with WT GFP-V0a1 & GFP-V0a1-Cys25Ser mutant construct, & pull-down experiments were conducted with AP-3 antibody to detect GFP-V0a1,*P<0.05(n=4). Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms14612), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: ATP6V0A1 Antibody [NBP1-89342] - In Cln1−/− mice V0a1 is misrouted to plasma membrane preventing its interaction with AP-3.(a) Western blot analysis & densitometric quantitation of V0a1 in isolated plasma membrane fraction from WT & Cln1−/− mouse brain (n=4, *P<0.05). (b) Localization of V0a1 in the plasma membrane in WT & Cln1−/− neurons using Na+, K+-ATPase as membrane marker. Colocalization between V0a1 & Na+, K+-ATPase was assessed using the Manders' colocalization coefficients M1 & M2 (n=18 for WT & n=22 for Cln1−/−, ***P<0.001; scale bars, 5 µm. (c) Pull-down assay with AP-3 antibody detects V0a1 in total brain lysates from WT & Cln1−/− mouse brain (n=4, *P<0.05). (d) Confocal imaging of PLA reaction showing V0a1 & AP-3δ interaction in neurons isolated from WT & Cln1−/−mouse brain (n=188 for WT & n=158 for Cln1−/−, ***P<0.001); scale bars, 20 µm. (e) Pull-down assay with AP-3 antibody using total lysates from untreated (lane 1) & bromopalmitate-treated (lane 2) WT brain slices to detect V0a1 & its densitometric quantitation (n=4, *P<0.05). (f) HEK-293 cells were transfected with WT GFP-V0a1 & GFP-V0a1-Cys25Ser mutant construct, & pull-down experiments were conducted with AP-3 antibody to detect GFP-V0a1,*P<0.05(n=4). Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms14612), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: ATP6V0A1 Antibody [NBP1-89342] - In Cln1−/− mice V0a1 is misrouted to plasma membrane preventing its interaction with AP-3.(a) Western blot analysis & densitometric quantitation of V0a1 in isolated plasma membrane fraction from WT & Cln1−/− mouse brain (n=4, *P<0.05). (b) Localization of V0a1 in the plasma membrane in WT & Cln1−/− neurons using Na+, K+-ATPase as membrane marker. Colocalization between V0a1 & Na+, K+-ATPase was assessed using the Manders' colocalization coefficients M1 & M2 (n=18 for WT & n=22 for Cln1−/−, ***P<0.001; scale bars, 5 μm. (c) Pull-down assay with AP-3 antibody detects V0a1 in total brain lysates from WT & Cln1−/− mouse brain (n=4, *P<0.05). (d) Confocal imaging of PLA reaction showing V0a1 & AP-3δ interaction in neurons isolated from WT & Cln1−/−mouse brain (n=188 for WT & n=158 for Cln1−/−, ***P<0.001); scale bars, 20 μm. (e) Pull-down assay with AP-3 antibody using total lysates from untreated (lane 1) & bromopalmitate-treated (lane 2) WT brain slices to detect V0a1 & its densitometric quantitation (n=4, *P<0.05). (f) HEK-293 cells were transfected with WT GFP-V0a1 & GFP-V0a1-Cys25Ser mutant construct, & pull-down experiments were conducted with AP-3 antibody to detect GFP-V0a1,*P<0.05(n=4). Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms14612), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Pepe S, Aprile D, Castroflorio E, Marte A et Al. TBC1D24 interacts with the v-ATPase and regulates intraorganellar pH in neurons iScience 2025-01-06 [PMID: 39758816]

Kanematsu A., , et Al. Editorial Comment to "Does primary urethral realignment improve the outcome of pediatric pelvic fracture urethral injury? A randomized controlled trial" Int J Urol 2023-10-06 [PMID: 37563920]

Esposito A, Pepe S, Cerullo MS et Al. ATP6V1A is required for synaptic rearrangements and plasticity in murine hippocampal neurons Acta Physiol (Oxf) 2024-06-05 [PMID: 38837572]

Elena Solopova, Wilber Romero-Fernandez, Hannah Harmsen, Lissa Ventura-Antunes, Emmeline Wang, Alena Shostak, Jose Maldonado, Manus J. Donahue, Daniel Schultz, Thomas M. Coyne, Andreas Charidimou, Matthew Schrag Fatal iatrogenic cerebral β-amyloid-related arteritis in a woman treated with lecanemab for Alzheimer's disease Nature Communications 2023-12-12 [PMID: 38086820]

Mori H, Peterson SK, Simmermon R et al. SCD1 and monounsaturated lipids are required for autophagy and survival of adipocytes bioRxiv : the preprint server for biology 2023-10-27 [PMID: 37961537] (WB)

Solopova E, Romero-Fernandez W, Harmsen H et al. Fatal Iatrogenic Cerebral Amyloid-Related Encephalitis in a patient treated with lecanemab for Alzheimers disease: neuroimaging and neuropathology medRxiv 2023-04-29 (IHC-P, Human)

Ye C, Zeng P, Liu Y et al. Tau overload associated insufficient lysosomal hydrolysis activity through deacidification of lysosomes Research Square 2023-08-31 (WB, Mouse)

Yamazaki Y, Eura Y, Kokame K. V-ATPase V0a1 promotes Weibel-Palade body biogenesis through the regulation of membrane fission eLife 2021-12-14 [PMID: 34904569]

Hoch L, Bourg N, Degrugillier F et al. Dual Blockade of Misfolded Alpha-Sarcoglycan Degradation by Bortezomib and Givinostat Combination Frontiers in Pharmacology 2022-04-27 [PMID: 35571097] (Western Blot)

Burrinha T, Cunha C, Hall MJ et al. Deacidification of endolysosomes by neuronal aging drives synapse loss Traffic (Copenhagen, Denmark) 2023-05-23 [PMID: 37218497]

Schrag M, Solopova E, Romero-Fernandez W et al. Fatal Iatrogenic Cerebral Amyloid-Related Encephalitis in a patient treated with lecanemab for Alzheimers disease: neuroimaging and neuropathology. Research Square 2023-05-10 (IHC)

Choezom D, Gross JC Neutral Sphingomyelinase 2 controls exosomes secretion via counteracting V-ATPase-mediated endosome acidification Journal of cell science 2022-01-20 [PMID: 35050379] (ICC/IF, WB, Human)

More publications at http://www.novusbio.com/NBP1-89342

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 NBP1-89342

NBP1-89342PEP	ATP6V0A1 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/NBP1-89342

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