

Product Datasheet

ABCA1 Antibody (HJ1) - BSA Free NB100-2068

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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NB100-2068

ABCA1 Antibody (HJ1) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	HJ1
Preservative	0.05% Sodium Azide
Isotype	IgG2b Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	250 kDa

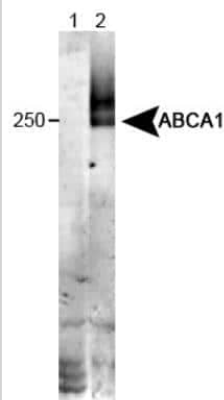
Product Description	
Host	Mouse
Gene ID	19
Gene Symbol	ABCA1
Species	Human, Mouse, Rat
Immunogen	50 kDa N-terminal extracellular loop of mouse ABCA1 Antibody (HJ1) [UniProt# P41233]

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot 1:2000, Flow Cytometry 1 ug per million cells. Use reported in scientific literature, Immunohistochemistry 1:400, Immunocytochemistry/ Immunofluorescence reported in scientific literature (PMID 31061090), Immunohistochemistry-Paraffin 1:400, CyTOF-ready
Application Notes	In Western blot a band is seen ~250 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. This antibody is CyTOF ready.

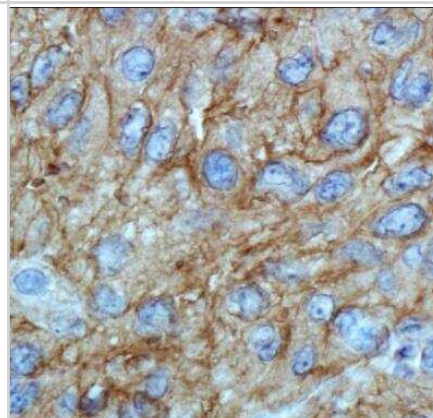


Images

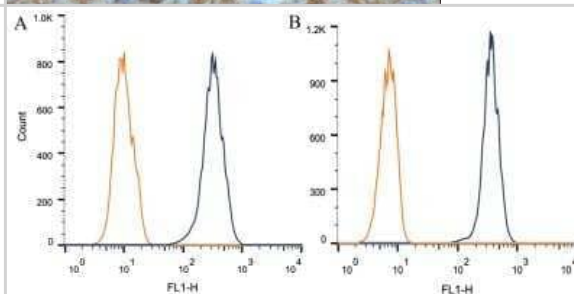
Western Blot: ABCA1 Antibody (HJ1) [NB100-2068] - Detection of ABCA1 in wildtype liver tissue (in RIPA) Lane 1: KO mouse liver tissue. Lane 2: WT mouse liver tissue.



Immunohistochemistry: ABCA1 Antibody (HJ1) [NB100-2068] - Analysis of ABCA1 in human renal cancer using DAB with hematoxylin counterstain.



Flow Cytometry: ABCA1 Antibody (HJ1) [NB100-2068] - Staining of 1×10^6 CHO (A) and HEK-293 (B) cells using ABCA1 antibody (dark blue). Isotype control shown in orange. An antibody concentration of $1 \mu\text{g}/1 \times 10^6$ cells was used.



Publications

Guix FX, Capitán AM, Casado M-Perales M et al. Increased exosome secretion in neurons aging in vitro by NPC1-mediated endosomal cholesterol buildup Life Science Alliance 2021-08-01 [PMID: 34183444]

Wilfahrt D, Philips RL, Lama J et al. Histone deacetylase 3 represses cholesterol efflux during CD4+ T-cell activation eLife 2021-12-02 [PMID: 34854376] (WB, Mouse)

Valtierra-Alvarado MA, Lugo-Villarino G, Dueñas-Arteaga F Et al. Impact of Type 2 Diabetes on the capacity of human macrophages infected with Mycobacterium tuberculosis to modulate monocyte differentiation through a bystander effect Immunology and cell biology 2021-08-11 [PMID: 34379824]

Sun R, Fang P, Jiang J et al. Insulin Rescued MCP-1-Suppressed Cholesterol Efflux to Large HDL2 Particles via ABCA1, ABCG1, SR-BI and PI3K/Akt Activation in Adipocytes Cardiovascular drugs and therapy 2021-03-19 [PMID: 33740174]

Valtierra-Alvarado MA, Castañeda Delgado JE, Ramírez-Talavera SI et al. Type 2 diabetes mellitus metabolic control correlates with the phenotype of human monocytes and monocyte-derived macrophages J. Diabetes Complicat. 2020-08-13 [PMID: 32843282] (FLOW, Human)

Details:

Citation using the Alexa Fluor 647 format of this antibody.

Khodja Y, Samuels ME Ethanol-mediated upregulation of APOA1 gene expression in HepG2 cells is independent of de novo lipid biosynthesis Lipids Health Dis 2020-06-20 [PMID: 32563265] (WB, Human)

Levy D, de Melo TC, Oliveira BA, et al 7-Ketocholesterol and cholestane-triol increase expression of SMO and LXR alpha signaling pathways in a human breast cancer cell line. Biochem Biophys Rep. 2018-12-31 [PMID: 31463370] (ICC/IF, Human)

Details:

A human mammary gland/breast cell line MDA-MB-231 was used in this study.

Yang Yingjie, Yang Qian, Yang Jian et al. Angiotensin II induces cholesterol accumulation and injury in podocytes. Scientific Reports 2017-09-06 [PMID: 28878222] (WB, Human)

Zhou Y, Miles JR, Tavori H et al. PMP22 regulates cholesterol trafficking and ABCA1-mediated cholesterol efflux J. Neurosci. 2019-05-06 [PMID: 31061090] (ICC/IF, Mouse)

Machado J. T. N-acetylcysteine reduces endoplasmic reticulum stress and affects selectively cholesterol efflux from macrophages mediated by ABCA-1 and ABCG-1 in chronic kidney disease. Thesis. 2014-09-01 (WB, Rat)

Nagata E, Ichi I, Kataoka R. Effect of Nobiletin on Lipid Metabolism in Rats J Health Sci. 2010-01-01 (WB, Rat)

Wang J, Zhang Z-R, Chou C-F et al. Cyclosporine stimulates the renal epithelial sodium channel by elevating cholesterol. Am J Physiol Renal Physiol;296(2):F284-90. 2009-02-01 [PMID: 19091785]

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Procedures

Western Blot protocol for ABCA1 Antibody (NB100-2068)

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted 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 three 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.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunohistochemistry-Paraffin protocol for ABCA1 Antibody (NB100-2068)

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.





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Products Related to NB100-2068

NBP1-30159	Raw 264.7 Whole Cell - T0901317 treated Assay Kit
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43317-0.5mg	Mouse IgG2b Kappa Light Chain Isotype Control (MG2b)

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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