

Product Datasheet

VDAC1 Antibody - BSA Free NB100-695

Unit Size: 0.1 mg

Store at -20C. Avoid freeze-thaw cycles.

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NB100-695

VDAC1 Antibody - BSA Free

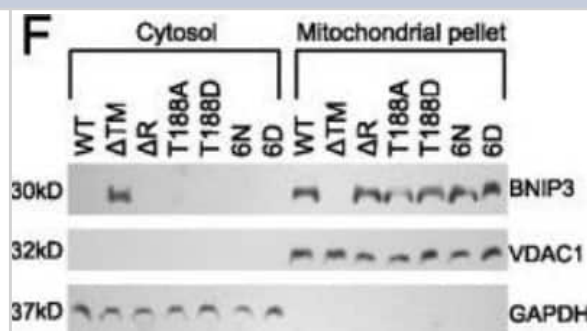
Product Information	
Unit Size	0.1 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Product Description	
Description	<p>The product was affinity purified from monospecific antiserum by immunoaffinity purification</p> <p>Store this antibody at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
Host	Rabbit
Gene ID	7416
Gene Symbol	VDAC1
Species	Human, Mouse, Rat, Fish
Reactivity Notes	A BLAST analysis was used to suggest that this antibody would react with VDAC1/Porin1 from a wide range of organisms, including avian, mammalian, aquatic and reptilian sources based on 100% homology for the immunogen sequence. Cross reactivity will occur with all forms of VDACS including VDAC1, VDAC2 (4 isoforms) and VDAC3 (2 isoforms) Mouse reactivity reported in scientific literature (PMID: 22728245). Rat reactivity reported in scientific literature (DOI: 10.4172/2157-7439.1000220).
Marker	Mitochondria Marker
Specificity/Sensitivity	Anti-VDAC1 Antibody is directed against human VDAC1/Porin1 protein. A BLAST analysis was used to suggest that this antibody would react with VDAC1/Porin1 from a wide range of organisms, including avian, mammalian, aquatic and reptilian sources based on 100% homology for the immunogen sequence. Cross reactivity will occur with all forms of VDACS including VDAC1, VDAC2 (4 isoforms) and VDAC3 (2 isoforms). Such broad reactivity makes this antibody useful as an excellent loading control (mitochondrial).
Immunogen	VDAC1 Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 175-200 of Human VDAC1/Porin1. (Uniprot: P21796)
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Immunohistochemistry, Knockdown Validated
Recommended Dilutions	Western Blot 1:500-1:2000, Simple Western, ELISA 1:15000-1:30000, Immunohistochemistry 1:10-1:500, Knockdown Validated

Application Notes

This product has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~30-33 kDa in size corresponding to VDAC/Porin by western blotting in the appropriate cell lysate or extract.

Images

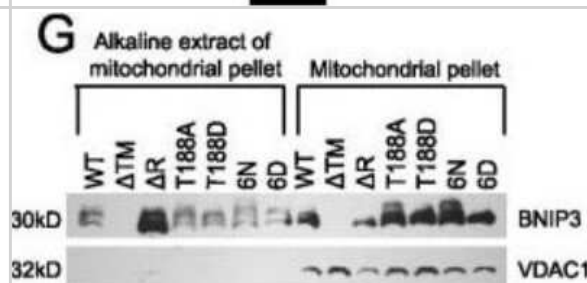
Western Blot: VDAC1 Antibody [NB100-695] - The BNIP3 C-terminus can be phosphorylated. Subcellular localization of BNIP3 phosphomutants, showing Western blot of cytosolic and mitochondrial fractions. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0129667>), licensed under a CC-BY license.



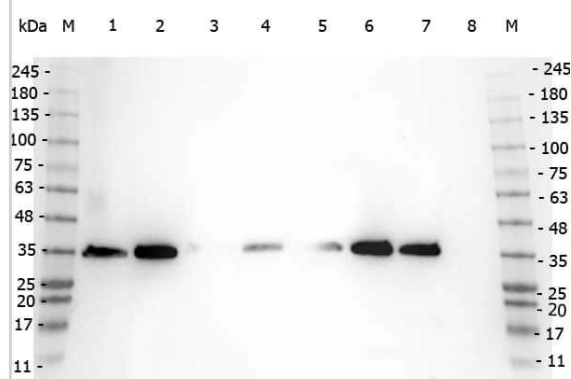
Western Blot: VDAC1 Antibody [NB100-695] - Lane 1: rat heart whole cell lysate. Lane 2: none. Load: 35 ug per lane. Primary antibody: VDAC/Porin antibody at 1:1,200 for overnight at 4C. Secondary antibody: IRDye800 (TM) rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: ~32 kDa corresponding to VDAC/Porin (arrowhead).



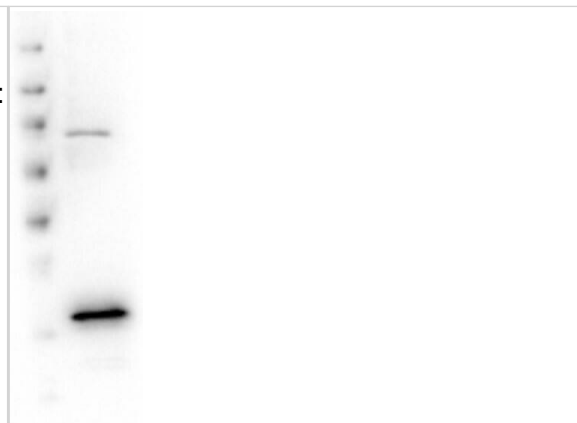
Western Blot: VDAC1 Antibody [NB100-695] - The BNIP3 C-terminus can be phosphorylated. Alkaline extraction of mitochondria-associated proteins, showing alkaline extract of the mitochondrial pellet and the alkaline-resistant mitochondrial pellet from cells expressing each BNIP3 phosphomutant. All blots are representative of at least 3 independent experiments. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0129667>), licensed under a CC-BY license.



Western Blot of Rabbit anti-VDAC/Porin antibody. Marker: Opal Pre-stained ladder



Western Blot of Rabbit anti-VDAC/Porin antibody. Lane 1: MW ladder. Lane 2: Mouse Heart WCL. Load: 10 ug per lane. Primary antibody: VDAC/Porin antibody at 1:1,000 for overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody



Publications

Yoon Y, Go G, Yoon S Et Al. Melatonin Treatment Improves Renal Fibrosis via miR-4516/SIAH3/PINK1 Axis Cells 2021-07-03 [PMID: 34359852]

Kam JH, Shinmar H, Powner MB et al. Mitochondrial decline in the ageing old world primate retina: Little evidence for difference between the centre and periphery PloS one 2023-05-02 [PMID: 37130143] (WB, Cynomolgus Monkey)

Details:
0.05ug/ml

Arumugam S, Li B, Boodapati SLT et al. Mitochondrial DNA and the STING pathway are required for hepatic stellate cell activation Hepatology (Baltimore, Md.) 2023-04-05 [PMID: 37013923]

Moreau, M, Capallere, C, et al. Reconstruction of functional human epidermis equivalent containing 5%IPS-derived keratinocytes treated with mitochondrial stimulating plant extracts. Sci Rep [PMID: 35641783] (Simple Western, Human)

Details:
0.180555556

Go G, Yoon Ym, Yoon S Et Al. Melatonin Protects Chronic Kidney Disease Mesenchymal Stem/Stromal Cells against Accumulation of Methylglyoxal via Modulation of Hexokinase-2 Expression Biomolecules & therapeutics 2021-07-15 [PMID: 34261819] (WB)

Zhu Y, Liu Q, Liao M et al. Overexpression of LncRNA EPB41L4A-AS1 induces metabolic reprogramming in trophoblast cells and placenta tissue of miscarriage Molecular Therapy - Nucleic Acids 2019-09-01 [PMID: 31671345] (KD, WB, Human)

Liu KE, Frazier WA. Phosphorylation of the BNIP3 C-Terminus Inhibits Mitochondrial Damage and Cell Death without Blocking Autophagy PLoS ONE. 2015-06-24 [PMID: 26102349] (WB, Human)

Lee TY, Liu MS, Huang LJ, Lue SI. The Immediate Mitochondrial Stress Response in Coping with Systemic Exposure of Silver Nanoparticles in Rat Liver. Nanomedicine & Nanotechnology. 2014-08-27 (WB, Rat)

Su YC, Chiu HW, Hung JC, Hong JR. Beta-nodavirus B2 protein induces hydrogen peroxide production, leading to Drp1-recruited mitochondrial fragmentation and cell death via mitochondrial targeting. Apoptosis 2014-07-10 [PMID: 25008790] (WB, Fish)

Details:
DRP1 antibody used for WB at 1:500 dilution on mitochondrial fractions isolated from Grouper/Epinephelus coioides cell line GF-1 cells (a cell line susceptible to grouper nervous necrosis virus - GNNV) transfected with EYFP or EYFP-B2 and treated with and without NAC or Mdivi for 48 h (Fig 6C).

Chen H, Dzitoyeva S, Manev H. Effect of valproic acid on mitochondrial epigenetics Eur J Pharmacol 2012-06-20 [PMID: 22728245] (WB, Mouse)



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Products Related to NB100-695

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00007416-Q03-10ug	Recombinant Human VDAC1 GST (N-Term) Protein

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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