

# Product Datasheet

## VDAC1 Antibody NB100-695

Unit Size: 0.1 mg

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

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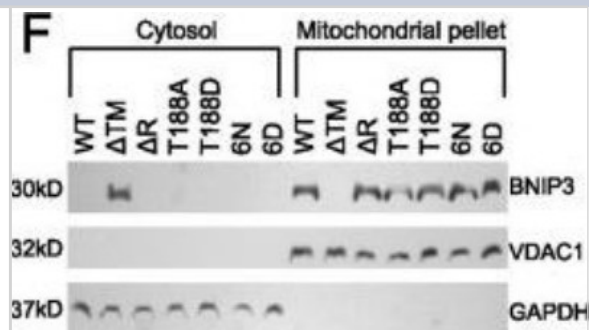
**NB100-695**

## VDAC1 Antibody

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	
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	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)
Notes	The product was affinity purified from monospecific antiserum by immunoaffinity purification  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.
Product Application Details	
Applications	Western Blot, ELISA, Immunohistochemistry, Knockdown Validated
Recommended Dilutions	Western Blot 1:500-1:2000, 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

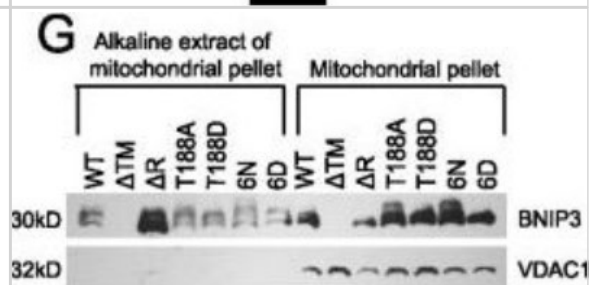
Western Blot: VDAC1 Antibody [NB100-695] - The BNIP3 C-terminus can be phosphorylated. Subcellular localization of BNIP3 phosphomutants, showing Western blot of cytosolic and mitochondrial fractions. Image collected and cropped by CiteAb from the following publication (<http://dx.plos.org/10.1371/journal.pone.0129667>),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



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 (<http://dx.plos.org/10.1371/journal.pone.0129667>), licensed under a CC-BY licence.



## Publications

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* Jul 15 2021 12:00AM [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* Sep 1 2019 12:00AM [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 Jun 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 Aug 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 Jul 10 [PMID: 25008790] (WB, Fish)

### Details:

VDAC1 antibody used in WB application at 1:500 dilution as mitochondrial marker for fractions isolated from Grouper/*Epinephelus coioides* cell line GF-1 (a cell line susceptible to grouper nervous necrosis virus - GNNV) transfected with Flag, betanodavirus B2 gene, and B2-delta as well as MCF-7 cells (Fig 1C). Antibody also used for WB of VDAC1 in GF-1 cells 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 Jun 20 [PMID: 22728245] (WB, Mouse)





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### Products Related to NB100-695

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00007416-P01-10ug	Recombinant Human VDAC1 GST (N-Term) Protein

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### 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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