



Anti-VDAC/Porin (RABBIT) Antibody - 600-401-882

Code: 600-401-882

Size: 200 µg

Product Description: Anti-VDAC/Porin (RABBIT) Antibody - 600-401-882

Concentration: 1.0mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	VDAC1
Species Reactivity	mouse, rat, human, bovine, swine, goat
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store VDAC antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C 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 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	rabbit anti-VDAC/Porin antibody, VDAC-1 Loading Control Antibody, Porin Loading Control Antibody, VDAC-1 Antibody, VDAC1 Antibody, POR1 Antibody, Porin Antibody, Voltage-dependent anion-selective channel protein 1, Outer mitochondrial membrane protein porin 1
Application Note	VDAC/Porin Antibody 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.
Background	VDAC/Porin Antibody recognizes VDAC (also known as Voltage-dependent anion-selective channel protein 1, Outer mitochondrial membrane protein porin 1, Plasmalemmal porin, Porin 31HL) which is an outer membrane mitochondrial protein. The VDAC proteins are ~30-33 kDa (some isoforms are larger - see below). The VDAC proteins are thought to form aqueous channels, or pores, through which adenine nucleotides cross the outer mitochondrial membrane. VDACs have been implicated in the formation of the mitochondrial permeability transition pore complex in apoptotic cells. This complex, formed by VDAC, adenine nucleotide translocator (ANT), and cyclophilin D (CypD), is thought to allow the mitochondria to undergo metabolic uncoupling and irreversible morphologic changes that ultimately destroy the mitochondria during apoptosis. VDACs are highly expressed in heart, liver and skeletal muscle, where concentrations of mitochondria are at their highest. This antibody can be used as a loading control with whole cell lysates and total mitochondrial preparations.
Purity And Specificity	Anti-VDAC/Porin Antibody is directed against human VDAC1/Porin1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. 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).
Assay Dilutions	User Optimized
ELISA	1:15,000 - 1:30,000
Western Blot	1:500 - 1:2,000
Immunohistochemistry	Yes
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	VDAC/Porin Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 185-197 of Human VDAC1/Porin1.

General Reference

Liu T et al. Rapid induction of mitochondrial events and caspase-independent apoptosis in Survivin-targeted melanoma cells. *Oncogene* 23:39-48 (2004).

Suarez J et al. In vivo adenoviral transfer of sorcin reverses cardiac contractile abnormalities of diabetic cardiomyopathy. *Am J Physiol Heart Circ Physiol* 286:H68-75 (2004).

Leary SC et al. Human SCO1 and SCO2 have independent, cooperative functions in copper delivery to cytochrome c oxidase. *Hum Mol Genet* 13:1839-48 (2004).

Specific Reference

Thakurela S, Garding A, Jung RB, Müller C, Goebbels S, White R, Werner HB, Tiwari VK. (2016) The transcriptome of mouse central nervous system myelin. *Sci Rep.* 2016 May 13;6:25828. doi: 10.1038/srep25828.

Petermann P, Haase I, Knebel-Mörsdorf D. (2009) Impact of Rac1 and Cdc42 signaling during early herpes simplex virus type 1 infection of keratinocytes. *J Virol.* 2009 Oct;83(19):9759-72. doi: 10.1128/JVI.00835-09. Epub 2009 Jul 29.

Related Products

200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
B304	NORMAL GOAT SERUM (NGS) - B304

Related Links

UniProtKB - P21796

<http://www.uniprot.org/uniprot/P21796>

NCBI - NP_003365.1

http://www.ncbi.nlm.nih.gov/protein/NP_003365.1

GeneID - 7416

Images

- 1 Western Blot of Rabbit Anti-VDAC/Porin Antibody. Lane 1: rat heart whole cell lysate. Load: 35 µg per lane. Primary antibody: VDAC/Porin antibody at 1:1,200 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~32 kDa corresponding to VDAC/Porin (arrowhead). Other band(s): none.

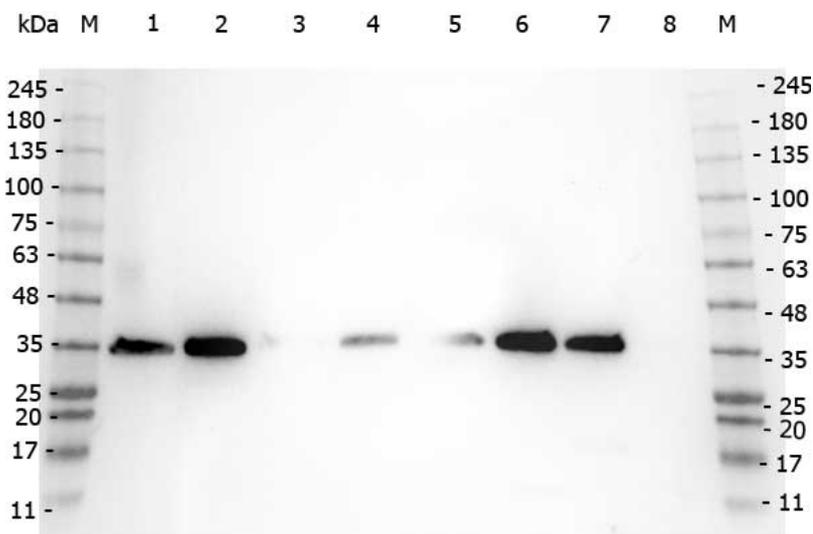


- 2 Western Blot of Rabbit anti-VDAC/Porin antibody. Lane 1: MW ladder. Lane 2: Mouse Heart WCL. Load: 10 µg per lane. Primary antibody: VDAC/Porin antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (p/n MB-070) for 30 min at RT. Predicted/Observed size: 32 kDa, 32 kDa for VDAC/Porin.



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Western Blot of Rabbit anti-VDAC/Porin antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6: LNCaP Lysate (p/n W09-001-GJ9). Lane 7: A-172 Lysate (p/n W09-001-GL5). Lane 8: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 µg per lane. Primary antibody: VDAC/Porin antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 31 kDa for VDAC/Porin.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.