Datasheet for ABIN129654

# anti-VDAC1 antibody (AA 175-200)

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## Overview

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| Quantity: | 200 µg |
| Target: | VDAC1 |
| Binding Specificity: | AA 175-200 |
| Reactivity: | Human, Rat, Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC), ELISA |

## Product Details

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| Purpose: | VDAC/Porin Antibody |
| Immunogen: | Immunogen: VDAC/Porin 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.<br>Immunogen Type: Conjugated Peptide |
| Isotype: | IgG |
| Cross-Reactivity (Details): | Anti-VDAC/Porin Antibody is directed against human VDAC1/Porin1 protein. |
| Characteristics: | 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 |
| Purification: | The product was affinity purified from monospecific antiserum by immunoaffinity purification. |
| Sterility: | Sterile filtered |

## Target Details

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| Target: | VDAC1 |
| Alternative Name: | VDAC1 (VDAC1 Products) |
| Background: | 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. |
| Gene ID: | 7416 |
| NCBI Accession: | NP_003365 |
| UniProt: | P21796 |

## Application Details

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| Application Notes: | Immunohistochemistry Dilution: User Optimized<br>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.<br>Western Blot Dilution: 1:500 - 1:2,000<br>ELISA Dilution: 1:15,000 - 1:30,000<br>Other: User Optimized |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Concentration: | 1.0 mg/mL |

## Handling

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| Buffer: | Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2<br>Stabilizer: None<br>Preservative: 0.01 % (w/v) Sodium Azide |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | 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. |
| Expiry Date: | 12 months |

## Publications

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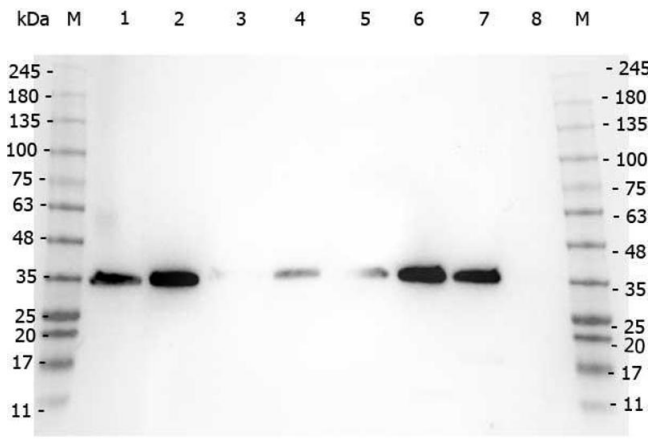
| Product cited in: | Thakurela, Garding, Jung, Müller, Goebbels, White, Werner, Tiwari: "The transcriptome of mouse central nervous system myelin." in: **Scientific reports**, Vol. 6, pp. 25828, (2018) (PubMed).<br><br>Petermann, Haase, Knebel-Mörsdorf: "Impact of Rac1 and Cdc42 signaling during early herpes simplex virus type 1 infection of keratinocytes." in: **Journal of virology**, Vol. 83, Issue 19, pp. 9759-72, (2009) (PubMed).<br><br>Bourekas, Slivka, Shah, Sunshine, Suarez: "Intraarterial thrombolytic therapy within 3 hours of the onset of stroke." in: **Neurosurgery**, Vol. 54, Issue 1, pp. 39-44; discussion 44-6, (2003) ( PubMed). |




## Western Blotting

**Image 1.** Western Blot of Rabbit anti-VDAC/Porin antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: MCF-7 Lysate . Lane 4: Jurkat Lysate . Lane 5: A431 Lysate . Lane 6: LNCaP Lysate . Lane 7: A-172 Lysate . Lane 8: NIH/3T3 Lysate . 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 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 VDACPorin.

## Western Blotting

**Image 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 at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting for 30 min at RT. Predicted/Observed size: 32 kDa, 32 kDa for VDAC/Porin. Other band(s): Not identified