

Rabbit VDAC1 Polyclonal Antibody | anti-VDAC1 antibody

VDAC1 Antibody

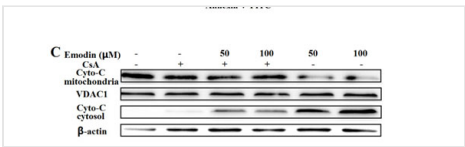
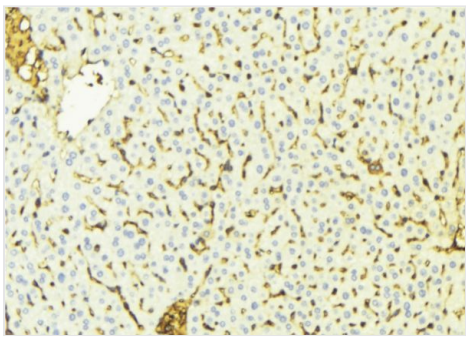
CATALOG # AAA322109	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

VDAC1; Polyclonal Antibody; VDAC1 Antibody; N2441; OMP2; POR1; hVDAC1; MGC111064; Mitochondrial Porin; Outer mitochondrial membrane protein porin 1; Plasmalemmal porin; Porin 31HL; Porin 31HM; VDAC; VDAC-1; Vdac1; VDAC1_HUMAN; Voltage dependent anion channel 1; Voltage dependent anion selective channel protein 1; Voltage-dependent anion-selective channel protein 1; YNL055C; YNL2441C; anti-VDAC1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	VDAC1 antibody detects endogenous levels of total VDAC1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	283
Applicable Applications for anti-VDAC1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human VDAC1
Subcellular Location	Mitochondrion Outer Membrane. Cell Membrane.
Tissue Specificity	Heart, liver and skeletal muscle.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of VDAC1 expression in HeLa cell lysate

IHC (Immunohistochemistry)
AAA322109 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-VDAC1 antibody	Description: Forms a channel through the mitochondrial outer membrane and also the plasma membrane. The channel at the outer mitochondrial membrane allows diffusion of small hydrophilic molecules; in the plasma membrane it is involved in cell volume regulation and apoptosis. It adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV. Function: Forms a channel through the mitochondrial outer membrane and also the plasma membrane. The channel at the outer mitochondrial membrane allows diffusion of small hydrophilic molecules; in the plasma membrane it is involved in cell volume regulation and apoptosis. It adopts an open conformation at low or zero membrane potential and a closed conformation at potentials above 30-40 mV. The open state has a weak anion selectivity whereas the closed state is cation-selective (PubMed:11845315, PubMed:18755977, PubMed:20230784, PubMed:8420959). May participate in the formation of the permeability transition pore complex (PTPC) responsible for the release of mitochondrial products that triggers apoptosis (PubMed:15033708, PubMed:25296756). Subunit Structure: Interacts with hexokinases including HK1 (PubMed:8420959, PubMed:22304920). The HK1-VDAC1 complex interacts with ATF2 (PubMed:22304920). Interacts with BCL2L1 (PubMed:18755977, PubMed:25296756). Interacts with BAK1 (PubMed:25296756). Interacts with RTL10/BOP (via BH3 domain) (PubMed:23055042). Interacts with amyloid-beta and APP; induces VDAC1 dephosphorylation (PubMed:25168729). Component of the mitochondrial permeability transition pore complex (mPTPC), at least composed of SPG7, VDAC1 and PPIF (PubMed:26387735). Interacts with SPG7, NIPSNAP2 and SLC25A30 (PubMed:26387735). Post-translational Modifications: Phosphorylation at Ser-193 by NEK1 promotes the open conformational state preventing excessive mitochondrial membrane permeability and subsequent apoptotic cell death after injury. Phosphorylation by the AKT-GSK3B axis stabilizes the protein probably by preventing ubiquitin-mediated proteasomal degradation. Ubiquitinated by PRKN during mitophagy, leading to its degradation and enhancement of mitophagy. Deubiquitinated by USP30. Similarity: Consists mainly of a membrane-spanning beta-barrel formed by 19 beta-strands. The helical N-terminus folds back into the pore opening and plays a role in voltage-gated channel activity. Belongs to the eukaryotic mitochondrial porin family.
References	Xie XC, Cao Y, Yang X, Xu QH, Wei W, Wang M; Journal: Biomed Res Int. Relaxin Attenuates Contrast-Induced Human Proximal Tubular Epithelial Cell Apoptosis by Activation of the PI3K/Akt Signaling Pathway In Vitro.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507879
NCBI GeneID	7416
NCBI Accession #	NP_003365.1
NCBI GenBank Nucleotide #	NM_003374.2
UniProt Accession #	P21796; Q5FVE7; Q9UIQ5; Q9UPL0; B3KVK4; D3DQ93

Molecular Weight	Observed: 31 kDa Predicted: 31 kDa
NCBI Official Full Name	voltage-dependent anion-selective channel protein 1
NCBI Official Synonym Full Names	voltage dependent anion channel 1
NCBI Official Symbol	VDAC1
NCBI Official Synonym Symbols	PORIN; VDAC-1
NCBI Protein Information	voltage-dependent anion-selective channel protein 1
UniProt Protein Name	Voltage-dependent anion-selective channel protein 1
UniProt Gene Name	VDAC1
UniProt Synonym Gene Names	VDAC; VDAC-1; hVDAC1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/vdac1-antibody-immunohistochemistry-western-blot-elisa/322109>