10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

VDAC/Porin Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10440

Specification

VDAC/Porin Antibody - Product Information

Application	**WB**
Primary Accession	P21796
Reactivity	**Human, Mouse, Rat, Rabbit, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**30773**

VDAC/Porin Antibody - Additional Information

Gene ID 7416

Positive Control	**Western Blot: 3T3 cell lysate. IHC: Liver tissue**
Application & Usage	**Western blotting (0.5-4 µg/ml) and Immunohistochemistry (2.5 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes ~31 kDa VDAC/Porin from samples of human, mouse, rat, bovine, pig, and rabbit origins.**

Other Names
VDAC1, VDAC-1 , MGC111064 , hVDAC1, Porin

Target/Specificity
VDAC/Porin

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-VDAC/Porin polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
VDAC/Porin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

VDAC/Porin Antibody - Protein Information

Name VDAC1

Synonyms VDAC

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). Binds various signaling molecules, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol (PubMed:31015432). In depolarized mitochondria, acts downstream of PRKN and PINK1 to promote mitophagy or prevent apoptosis; polyubiquitination by PRKN promotes mitophagy, while monoubiquitination by PRKN decreases mitochondrial calcium influx which ultimately inhibits apoptosis (PubMed:32047033). 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). May mediate ATP export from cells (PubMed:30061676).

Cellular Location
Mitochondrion outer membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Membrane raft; Multi-pass membrane protein

Tissue Location
Expressed in erythrocytes (at protein level) (PubMed:27641616). Expressed in heart, liver and skeletal muscle (PubMed:8420959).

VDAC/Porin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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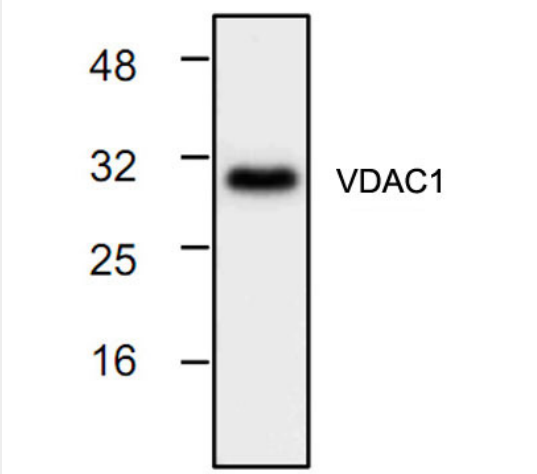
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

VDAC/Porin Antibody - Images



Western blot analysis of VDAC/Porin with 3T3 cell lysate.

VDAC/Porin Antibody - Background

The Voltage-Dependent Anion Channel (VDAC or mitochondrial Porin)I is an outer membrane mitochondrial protein. The VDAC protein is tho µght to form the major pores thro µgh which adenine nucleotides are transferred thro µgh the outer mitochondrial membrane. VDAC has also been implicated in the formation of the mitochondrial permeability transition pore complex in apoptotic cells. This complex, formed by VDAC, ANT, and CypD is tho µght to allow the mitochondria to undergo metabolic uncoupling and irreversible morphologic changes that ultimately destroy the mitochondria during apoptosis.