

VDAC2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP21559a

Specification

VDAC2 Antibody (N-term) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype IHC-P, WB,E <u>P45880</u> Human, Mouse, Rat Rabbit polyclonal Rabbit IgG

VDAC2 Antibody (N-term) - Additional Information

Gene ID 7417

Other Names Voltage-dependent anion-selective channel protein 2, VDAC-2, hVDAC2, Outer mitochondrial membrane protein porin 2, VDAC2

Target/Specificity

This VDAC2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 51-85 amino acids from the N-terminal region of human VDAC2.

Dilution IHC-P~~1:100 WB~~1:2000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions VDAC2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

VDAC2 Antibody (N-term) - Protein Information

Name VDAC2 (<u>HGNC:12672</u>)

Function Non-selective voltage-gated ion channel that mediates the transport of anions and cations through the mitochondrion outer membrane and plasma membrane (PubMed:<u>8420959</u>).



The channel adopts an open conformation at zero mV and a closed conformation at both positive and negative potentials (PubMed:<u>8420959</u>). There are two populations of channels; the main that functions in a lower open-state conductance with lower ion selectivity, that switch, in a voltage-dependent manner, from the open to a low-conducting 'closed' state and the other that has a normal ion selectivity in the typical high conductance, 'open' state (PubMed:<u>8420959</u>). Binds various lipids, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol (PubMed:<u>31015432</u>). Binding of ceramide promotes the mitochondrial outer membrane permeabilization (MOMP) apoptotic pathway (PubMed:<u>31015432</u>).

Cellular Location Mitochondrion outer membrane. Membrane. Note=May localize to non-mitochondrial membranes.

Tissue Location Expressed in erythrocytes (at protein level) (PubMed:27641616). Expressed in all tissues examined (PubMed:8420959)

VDAC2 Antibody (N-term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

VDAC2 Antibody (N-term) - Images



All lanes : Anti-VDAC2 Antibody (N-term) at 1:4000 dilution Lane 1: NCI-H1299 whole cell lysate Lane 2: HCT116 whole cell lysate Lane 3: PC-3 whole cell lysate Lane 4: Mouse heart tissue lysate Lane 5: Rat heart tissue lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





All lanes : Anti-VDAC2 Antibody (N-term) at 1:2000 dilution Lane 1: HCT116 whole cell lysate Lane 2: NCI-H1299 whole cell lysate Lane 3: PC-3 whole cell lysate Lane 4: Mouse brain tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of AP21559a on paraffin-embedded Human brain tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.





Immunohistochemical analysis of AP21559a on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

VDAC2 Antibody (N-term) - Background

Forms a channel through the mitochondrial outer membrane that allows diffusion of small hydrophilic molecules. The channel 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.

VDAC2 Antibody (N-term) - References

Ha H.,et al.J. Biol. Chem. 268:12143-12149(1993). Blachly-Dyson E.,et al.J. Biol. Chem. 268:1835-1841(1993). Decker W.K.,et al.Mamm. Genome 10:1041-1042(1999). Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases. Deloukas P.,et al.Nature 429:375-381(2004).