

# VDAC2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21559a

## Product Information

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<b>Application</b>	IHC-P, WB, E
<b>Primary Accession</b>	<a href="#">P45880</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB49629
<b>Calculated MW</b>	31567

## Additional Information

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<b>Gene ID</b>	7417
<b>Other Names</b>	Voltage-dependent anion-selective channel protein 2, VDAC-2, hVDAC2, Outer mitochondrial membrane protein porin 2, VDAC2
<b>Target/Specificity</b>	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.
<b>Dilution</b>	IHC-P~~1:100 WB~~1:2000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	VDAC2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	VDAC2 ( <a href="#">HGNC:12672</a> )
<b>Function</b>	Non-selective voltage-gated ion channel that mediates the transport of anions and cations through the mitochondrion outer membrane and plasma membrane (PubMed: <a href="#">8420959</a> ). The channel adopts an open conformation at zero mV and a closed conformation at both positive and negative potentials (PubMed: <a href="#">8420959</a> ). 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:[8420959](#)). Binds various lipids, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol (PubMed:[31015432](#)). Binding of ceramide promotes the mitochondrial outer membrane permeabilization (MOMP) apoptotic pathway (PubMed:[31015432](#)). Associates with the translocase of the outer mitochondrial membrane (TOM) complex and PINK1 kinase at depolarized mitochondria, this interaction stabilizes PINK1 at the outer mitochondrial membrane and triggers downstream mitophagy by the recruitment of the E3 ubiquitin ligase PRKN (PubMed:[40080546](#)).

**Cellular Location**

Mitochondrion outer membrane; Multi-pass membrane protein. 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)

## Background

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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.

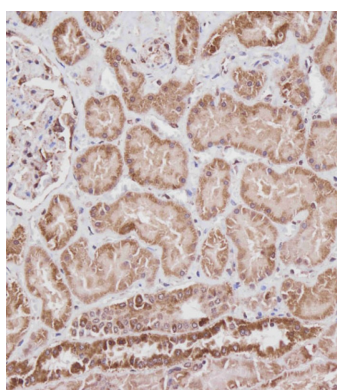
## References

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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).  
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Deloukas P.,et al.Nature 429:375-381(2004).

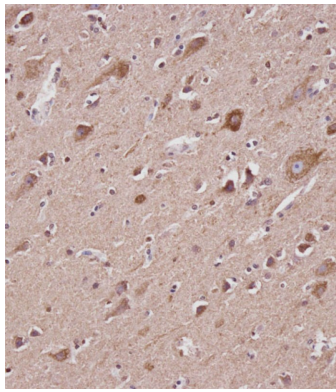
## Images

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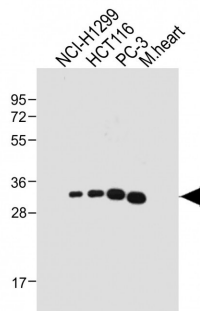


Immunohistochemical analysis of AP21559a on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted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

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.



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 Lysates/proteins at 20  $\mu$ 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.