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VDAC2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21559a

Product Information

Application	IHC-P, WB, E
Primary Accession	P45880
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB49629
Calculated MW	31567

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.

Protein Information

Name	VDAC2 (HGNC:12672)
Function	Non-selective voltage-gated ion channel that mediates the transport of anions and cations through the mitochondrion outer membrane and plasma membrane (PubMed:8420959). The channel adopts an open conformation at zero mV and a closed conformation at both positive and negative potentials (PubMed:8420959). 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).
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)

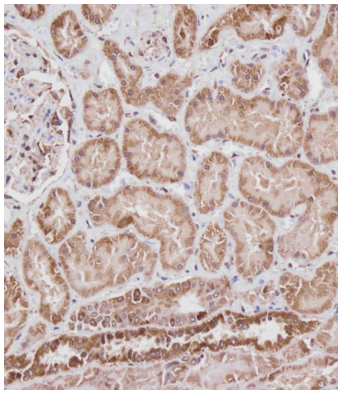
Background

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.

References

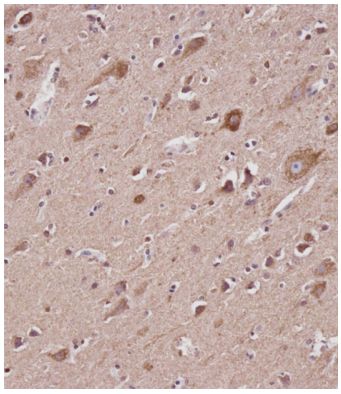
Ha H.,et al.J. Biol. Chem. 268:12143-12149(1993).
Blachly-Dyson E.,et al.J. Biol. Chem. 268:1835-1841(1993).
Decker W.K.,et al.Mamm. Genome 10:1041-1042(1999).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Deloukas P.,et al.Nature 429:375-381(2004).

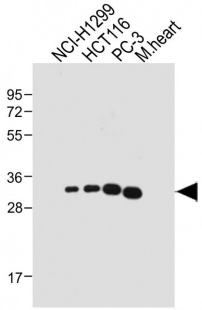
Images



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 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.