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VDAC3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17092c

Product Information

Application	IHC-P, WB, FC, IHC-P-Leica, E
Primary Accession	Q9Y277
Other Accession	Q9TT13, Q29380, Q60931, Q9MZ13, NP_005653.3, NP_001129166.1
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse, Pig, Rabbit, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37017
Calculated MW	30659
Antigen Region	156-183

Additional Information

Gene ID	7419
Other Names	Voltage-dependent anion-selective channel protein 3, VDAC-3, hVDAC3, Outer mitochondrial membrane protein porin 3, VDAC3
Target/Specificity	This VDAC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 156-183 amino acids from the Central region of human VDAC3.
Dilution	IHC-P~~1:100 WB~~1:1000 FC~~1:25 IHC-P-Leica~~1:250 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	VDAC3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	VDAC3 (HGNC:12674)
Function	Non-selective voltage-gated ion channel that mediates the transport of

	anions and cations through the mitochondrion outer membrane and plasma membrane (PubMed:31935282). Forms a high-conducting channel with a stable open state and a voltage-induced closure with a mild preference for anions over cations (PubMed:31935282). Involved in male fertility and sperm mitochondrial sheath formation (By similarity).
Cellular Location	Mitochondrion outer membrane {ECO:0000250|UniProtKB:P21796}. Membrane Note=May localize to non-mitochondrial membranes
Tissue Location	Expressed in erythrocytes (at protein level) (PubMed:27641616). Widely expressed. Highest in testis (PubMed:9781040).

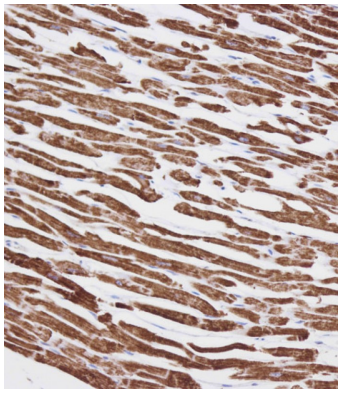
Background

VDAC3 belongs to a group of mitochondrial membrane channels involved in translocation of adenine nucleotides through the outer membrane. These channels may also function as a mitochondrial binding site for hexokinase (see HK1; MIM 142600) and glycerol kinase (GK; MIM 300474) (Rahmani et al., 1998).[supplied by OMIM].

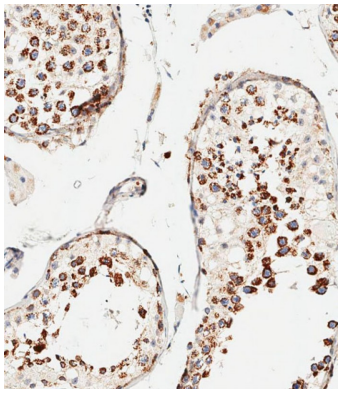
References

Reina, S., et al. FEBS Lett. 584(13):2837-2844(2010)
Lefievre, L., et al. Proteomics 7(17):3066-3084(2007)
Lamesch, P., et al. Genomics 89(3):307-315(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Rush, J., et al. Nat. Biotechnol. 23(1):94-101(2005)

Images

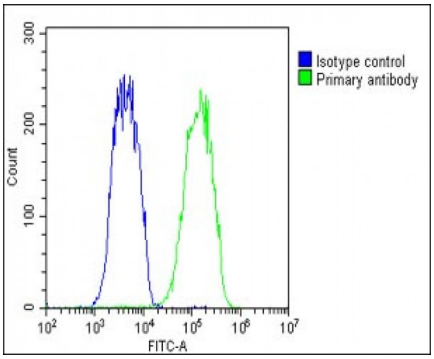


Immunohistochemical analysis of AP17092c on paraffin-embedded Human heart tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

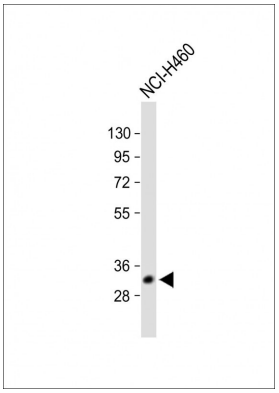


Immunohistochemical analysis of paraffin-embedded human testis tissue using AP17092c performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Overlay histogram showing Hela cells stained with AP17092c(green line). The cells were fixed with 2%



paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP17092c, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Anti-VDAC3 Antibody (Center) at 1:1000 dilution + NCI-H460 whole cell lysate Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Changes in the mitochondrial protein profile due to ROS eruption during ageing of elm (Ulmus pumila L.) seeds.

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