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Rabbit Anti-VDAC/AP Conjugated antibody

SL1461R-AP

Product Name	Anti-VDAC/AP
Chinese Name	碱性磷酸酶（AP）标记的等电压依赖性阴离子通道抗体
Alias	voltage-dependent anion channel; hVDAC1; MGC111064; Outer mitochondrial membrane protein porin 1; Plasmalemmal porin; Porin 31 HL; Porin 31HL; Porin 31HM; VDAC 1; VDAC; VDAC1; Voltage dependent anion channel 1; Voltage dependent anion selective channel protein 1; VTA1_HUMAN.
Research Area	Cell biology immunology Apoptosis Channel protein Mitochondrion
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Rat(predicted:Mouse,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	32kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human VDAC
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** Voltage dependent anion selective channel protein 1 (VDAC/Porin) belongs to the eukaryotic mitochondrial porin family and forms a channel through the mitochondrial outer membrane and also the plasma membrane. The channel allows diffusion of small hydrophilic molecules; 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. VDAC/Porin expression is observed in the heart,liver and skeletal muscle.

Function:
Involved in the endosomal multivesicular bodies (MVB) pathway. MVBs contain intraluminal vesicles (ILVs) that are generated by invagination and scission from the limiting membrane of the endosome and mostly are delivered to lysosomes enabling degradation of membrane proteins, such as stimulated growth factor receptors, lysosomal enzymes and lipids. Thought to be a cofactor of VPS4A/B, which catalyzes disassembles membrane-associated ESCRT-III assemblies. Involved in the sorting and down-regulation of EGFR (By similarity). Involved in HIV-1 budding.

Subunit:
Interacts with VPS4B. Interacts with CHMP1B. Interacts with CHMP2A; the interaction probably involves the open conformation of (polymerized) CHMP2A. May interact with CHMP3. Interacts with CHMP5; the interaction involves soluble CHMP5. Interacts with IST1.

Subcellular Location:
Cytoplasm. Endosome membrane; Peripheral membrane protein (Probable).

Similarity:
Belongs to the VTA1 family.

Database links:

Entrez Gene: 416320 Chicken

Entrez Gene: 282119 Cow

Entrez Gene: 7416 Human

Entrez Gene: 22333 Mouse

Entrez Gene: 397010 Pig

Entrez Gene: 83529 Rat

Entrez Gene: 334582 Zebrafish

Omim: 604492 Human

Important Note:

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This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

电压依赖性阴离子通道 VDAC 是存在于 Mitochondrion 外膜上的 31kDa 蛋白,能在膜上形成亲水性通道,调控阴离子、阳离子、ATP 以及其他代谢物进出 Mitochondrion,在调节细胞代谢、维持胞内钙稳态,调节 Apoptosis 和坏死等过程中发挥重要功能。