

## VDAC1 Monoclonal Antibody

catalog number: **AN005380L**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

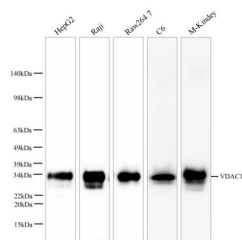
<b>Reactivity</b>	Human;Mouse;Rat
<b>Immunogen</b>	Synthetic peptide corresponding to Human VDAC1 protein
<b>Host</b>	Mouse
<b>Isotype</b>	IgG1
<b>Clone</b>	2G11
<b>Purification</b>	Protein A/G Purification
<b>Buffer</b>	PBS with 0.05% Proclin300, 1% protective protein and 50% glycerol, pH7.4

### Applications

### Recommended Dilution

<b>WB</b>	1:1000-1:2000
<b>IHC</b>	1:200-1:400

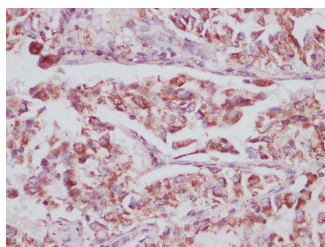
### Data



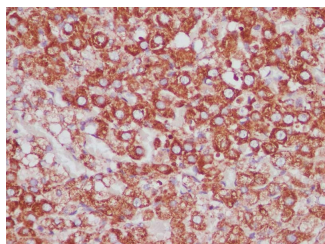
Western blot with Anti VDAC1 Monoclonal Antibody at dilution of 1:1000. Lane 1:HepG2 cell lysate,Lane 2:Raji cell lysate, Lane 3:RAW264.7 cell lysate,Lane 4:C6 cell lysate,Lane 5:Mouse Kindey tissue lysate.

**Observed-MW:33 kDa**

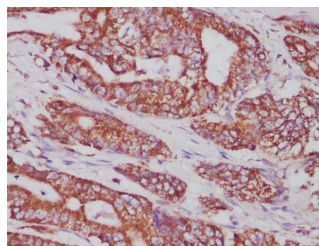
**Calculated-MW:31 kDa**



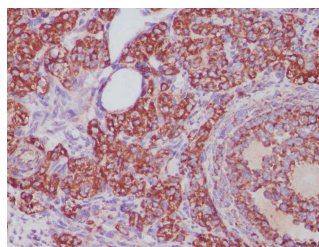
Immunohistochemistry of paraffin-embedded human lung cancer using VDAC1 Monoclonal Antibody at dilution of 1:500.



Immunohistochemistry of paraffin-embedded rat ovary using VDAC1 Monoclonal Antibody at dilution of 1:500.



Immunohistochemistry of paraffin-embedded human colon cancer using VDAC1 Monoclonal Antibody at dilution of 1:500.



Immunohistochemistry of paraffin-embedded mouse ovary using VDAC1 Monoclonal Antibody at dilution of 1:500.

### For Research Use Only

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Rev. V1.6

## Preparation & Storage

<b>Storage</b>	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
<b>Shipping</b>	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

## Background

Non-selective voltage-gated ion channel that mediates the transport of anions and cations through the mitochondrion outer membrane and plasma membrane. The channel at the outer mitochondrial membrane allows diffusion of small hydrophilic molecules; in the plasma membrane it is involved in cell volume regulation and apoptosis. 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. Binds various signaling molecules, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol. In depolarized mitochondria, acts downstream of PRKN and PINK1 to promote mitophagy or prevent apoptosis; polyubiquitination by PRKN promotes mitophagy, while monoubiquitination by PRKN decreases mitochondrial calcium influx which ultimately inhibits apoptosis. May participate in the formation of the permeability transition pore complex (PTPC) responsible for the release of mitochondrial products that triggers apoptosis. May mediate ATP export from cells. Part of a complex composed of HSPA9, ITPR1 and VDAC1 that regulates mitochondrial calcium-dependent apoptosis by facilitating calcium transport from the ER lumen to the mitochondria intermembrane space thus providing calcium for the downstream calcium channel MCU that directly releases it into mitochondria matrix. Mediates cytochrome c efflux. Catalyzes the scrambling of phospholipids across the outer mitochondrial membrane; the mechanism is unrelated to channel activity and is capable of translocating both anionic and zwitterionic phospholipids.

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