Product Specification Sheet

# VDAC1 antibody

Cat # VDAC11-A | Rabbit Anti-Human VDAC1 antibody | **SIZE**: 100 µg

The Voltage-Dependent Anion Channel 1 (also known as VDAC, VDAC1 or outer mitochondrial membrane protein porin 1) is the outer mitochondrial membrane receptor for hexokinase and BCL2L1. The VDAC proteins are thought to form aqueous channels, or pores, through which adenine nucleotides cross the outer mitochondrial membrane. VDACs have been implicated in the formation of the mitochondrial permeability transition pore complex in apoptotic cells. This complex, formed by VDAC, adenine nucleotide translocator (ANT), and cyclophilin D (CypD), is thought to allow the mitochondria to undergo metabolic uncoupling and irreversible morphologic changes that ultimately destroy the mitochondria during apoptosis. VDACs are highly expressed in heart, liver and skeletal muscle, where concentrations of mitochondria are at their highest.

## Source of Antigen or Antibodies

**Uniprot:** P21796

**Host:** Rabbit

**Clonality:** Polyclonal

**Purification:** Ammonium sulfate followed by peptide affinity purification.

**Immunogen:** 13 amino acid synthetic peptide derived from within amino acid 20-50 of Human VDAC 1.

**Cross reactivity:** The peptide used as an immunogen exhibits 100% homology with Mouse, Rat, Non-human primate, Chicken, Dog, Cat, Xenopus laevis, Goat, Sheep, and Bovine VDAC1 and 92% Danio rerio.

**Subcellular Location:** Mitochondrion outer membrane

**Alternative names:** Voltage-dependent anion-selective channel protein 1

**Recommended Secondary Antibody:** Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

## Form & Storage of Antibodies

**Affinity pure IgG Solution**
Concentration: 0.5 mg/ml Volume: 200 µl
Supplied in PBS, pH 7.4 + 0.1% BSA
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

**Lyophilized powder**
Reconstitute powder in 200 µl distilled water to 0.5 mg/ml

**Storage:**

**Short-term**: 4°C for 1 month

**Long-term**: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at –20°C.

## Recommended Usage

**Western Blotting**: 0.5-2.0 µg/ml

**Immunohistochemistry:** 1-10 µg/ml. QC tested using 10 mM sodium citrate pH 6, antigen retrieval buffer. The antibody may work better with no retrieval or different retrieval solutions.

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunofluorescence. These methods have not been tested by ADI.

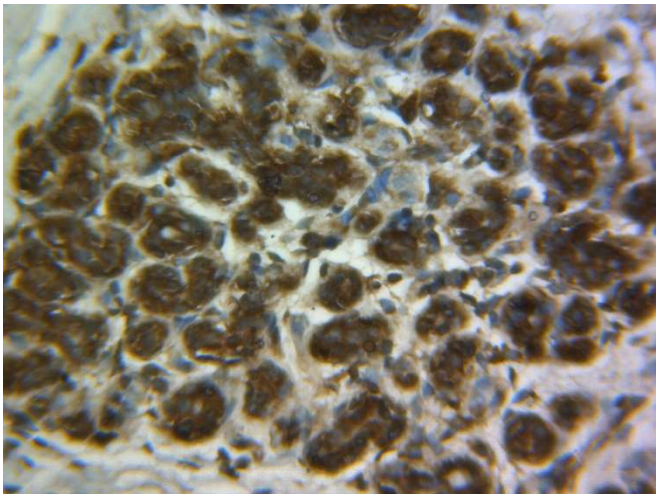
***This product is for In vitro research use only.***

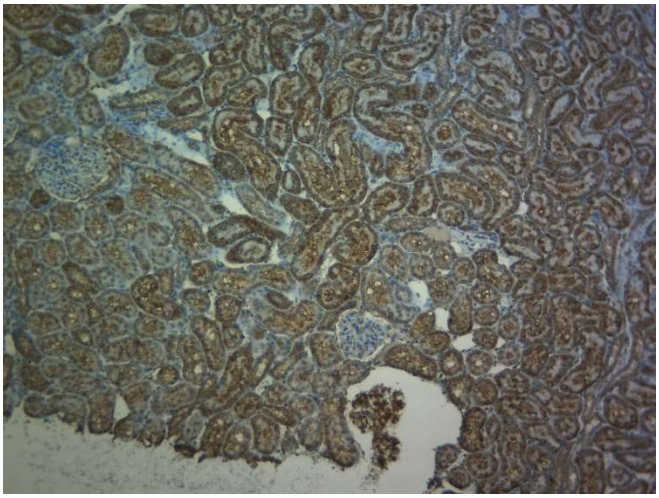
**Related materials available from ADI**

| Catalog# | Description |
|---|---|
| VDAC51-A antibody | Rabbit anti-Arabidopsis Thaliana VDAC1 |
| VDAC31-A antibody | Rabbit anti-Human Phospho VDAC1 (Ser193) |
| BCL11-A | Rabbit Anti-Human BCL-2 antibody |
| BCL21-A | Rabbit Anti-Mouse BCL-2 antibody |
| BCL2-C | Recombinant BCL-2 control for Western blotting |
| BAX11-A antibody | Rabbit anti-Human BAX antibody (N-terminus) |
| BAX12-A antibody | Rabbit anti-Human BAX antibody (Mid region) |
| BAX21-A antibody | Rabbit anti-Mouse BAX antibody (N-terminus) |
| BAX22-A antibody | Rabbit anti-Mouse BAX antibody (Mid region) |

VDAC11-A 190418VIA

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com





**Immunohistochemistry:** FFPE Human Adenocarcinoma and Rat Kidney slides were heated for 20 minutes at 60°C then deparrafinized. Antigen retrieval was performed for 10 minutes at 95°C in a microwave using 10 mM pH 6, sodium citrate buffer. The slide was then cooled for 20 minutes at room temperature before being blocked for 30 minutes with 2.5% normal goat serum. **VDAC11-A** was diluted to 5 µg/ml in TBST+0.1% BSA and incubated overnight at 4°C. The slides were then washed twice and incubated with 3% hydrogen peroxide for 10 minutes to quench endogenous peroxidase. The slide was washed then incubated with Goat anti-Rabbit IgG HRP polymer detection reagent for 30 minutes at room temperature. The slide was washed twice, incubated with DAB for 3 minutes, washed with distilled water, then counterstained for 1 minute with Gil's II Hematoxylin before being cover-slipped.