Product datasheet

# Anti-VDAC1 Antibody

**Catalog Number: *A01168-1***

BOSTER
antibody and ELISA experts
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## Basic Information

| | |
|---|---|
| **Product Name** | Anti-VDAC1 Antibody |
| **Gene Name** | VDAC1 |
| **Source** | Rabbit |
| **Isotype** | IgG |
| **Species Reactivity** | human,mouse,rat |
| **Tested Application** | WB,IHC,ICC/IF,IF,FCM,Direct ELISA |
| **Contents** | 500 ug/ml antibody with PBS，0.02% NaN3, 1 mg BSA and 50% glycerol. |
| **Immunogen** | E.coli-derived human Porin/VDAC1 recombinant protein (Position: D78-H181). |
| **concentration** | 500 ug/ml |
| **Purification** | Immunogen affinity purified. |
| **Observed MW** | 34KD |
| **Dilution Ratios** | Western blot (WB): 1:500-2000<br>Immunohistochemistry in paraffin section (IHC): 1:50-400<br>Immunofluorescence (IF): 1:50-400<br>Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400<br>Flow cytometry (FCM): 1-3 μg/1x$10^6$ cells<br>Direct ELISA: 1:100-1000<br>(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |

## Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

## Background Information

The voltage-dependent anion channel (VDAC) of the outer mitochondrial membrane is a small, abundant outer membrane pore-forming protein found in the outer membranes of all eukaryotic mitochondria. The VDAC protein is thought to form the major pathway for movement of adenine nucleotides through the outer membrane and to be the mitochondrial binding site for hexokinase and glycerol kinase. At low transmembrane voltage, VDAC is open for anions such as phosphate, chloride, and adenine nucleotides. At higher transmembrane voltage, VDAC functions as a selective channel for cations and uncharged molecules. These features make VDAC likely to play a role in mitochondrial energy metabolism. Huizing et al. studied by Northern and Western blot analyses the human tissue distribution of mitochondrial transmembrane metabolite carriers. They found that VDAC1 mRNA has a ubiquitous distribution, with most pronounced expression in heart, liver, and skeletal muscle, whereas the VDAC2 isoform appears to be expressed only in the heart.

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# Selected Validation Data

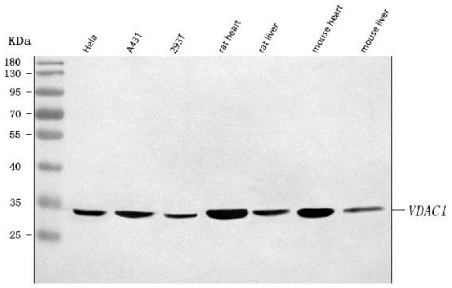


Figure 1. Western blot analysis of anti-Porin/VDAC1 antibody (A01168-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human A431 whole cell lysates,
Lane 3: human 293T whole cell lysates,
Lane 4: rat heart tissue lysates,
Lane 5: rat liver tissue lysates,
Lane 6: mouse heart tissue lysates,
Lane 7: mouse liver tissue lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Porin/VDAC1 antigen affinity purified polyclonal antibody (A01168-1) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Porin/VDAC1 at approximately 34 kDa. The expected band size for Porin/VDAC1 is at 31 kDa.

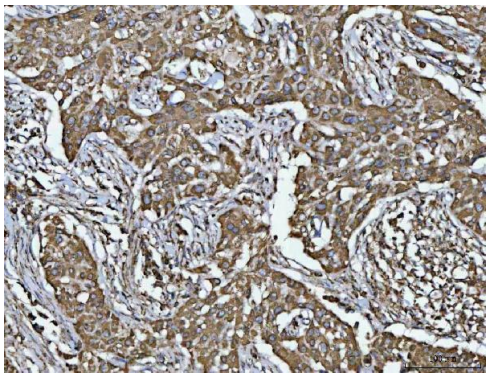

Figure 2. IHC analysis of Porin/VDAC1 using anti-Porin/VDAC1 antibody (A01168-1).
Porin/VDAC1 was detected in a paraffin-embedded section of human lymphadenoma tissue. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1022) as the chromogen.

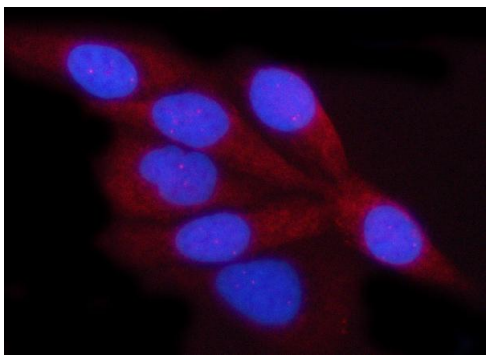

Figure 10. IF analysis of Porin/VDAC1 using anti-Porin/VDAC1 antibody (A01168-1).
Porin/VDAC1 was detected in an immunocytochemical section of Hela cells. Cy3-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1032) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

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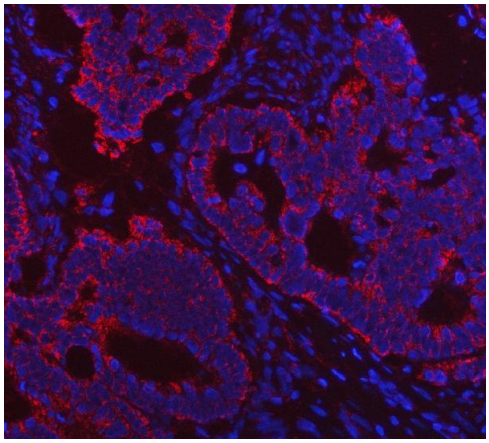

Figure 11. IF analysis of Porin/VDAC1 using anti-Porin/VDAC1 antibody (A00570-1).
Porin/VDAC1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Cy3-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1032) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

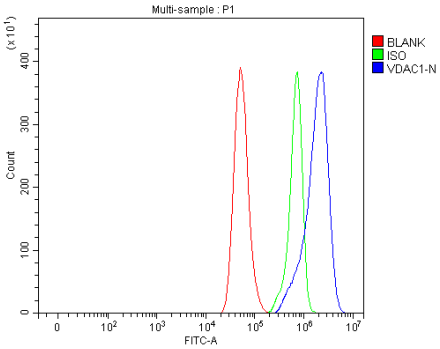


Figure 14. Flow Cytometry analysis of Hela cells using anti-Porin/VDAC1 antibody (A01168-1).
Overlay histogram showing Hela cells stained with A01168-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Porin/VDAC1 Antibody (A01168-1, 1 µg/1x$10^6$ cells). DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10 µg/1x$10^6$ cells) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1 µg/1x$10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.