

Datasheet for ABIN3044167

## anti-VDAC1 antibody (Middle Region)



[Go to Product page](#)

4 Images

1 Publication

### Overview

Quantity:	100 µg
Target:	VDAC1
Binding Specificity:	AA 163-178, Middle Region
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This VDAC1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunocytochemistry (ICC), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

### Product Details

Purpose:	Rabbit IgG polyclonal antibody for Voltage-dependent anion-selective channel protein 1 (VDAC1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human, Mouse, Rat.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human VDAC(163-178aa RVTQSNFAVG YKTDEF), identical to the related rat and mouse sequences.
Sequence:	RVTQSNFAVG YKTDEF
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Voltage-dependent anion-selective channel protein 1 (VDAC1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human, Mouse, Rat. Gene Name: voltage-dependent anion channel 1

## Product Details

Protein Name: Voltage-dependent anion-selective channel protein 1(VDAC-1/hVDAC1)

Purification: Immunogen affinity purified.

## Target Details

Target: VDAC1

Alternative Name: VDAC1 ([VDAC1 Products](#))

Background: 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.

Synonyms: N2441 antibody|OMP2 antibody|POR1 antibody|hVDAC1 antibody|MGC111064 antibody|Mitochondrial Porin antibody|Outer mitochondrial membrane protein porin 1 antibody|Plasmalemmal porin antibody|Porin 31 HL antibody|Porin 31HL antibody|Porin 31HM antibody|VDAC 1 antibody|VDAC antibody|VDAC-1 antibody|VDAC1 antibody|VDAC1\_HUMAN antibody|Voltage dependent anion channel 1 antibody|Voltage dependent anion selective channel protein 1 antibody|Voltage-dependent anion-selective channel protein 1 antibody|YNL055C antibody|YNL2441C antibody

UniProt: [P21796](#)

## Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat  
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.

## Application Details

IHC-F: Concentration: 0.5-1 µg/mL, Tested Species: Rat, Predicted Species: Human, Mouse  
ICC: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Predicted Species: Rat  
Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested.  
Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P), IHC(F) and ICC.

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

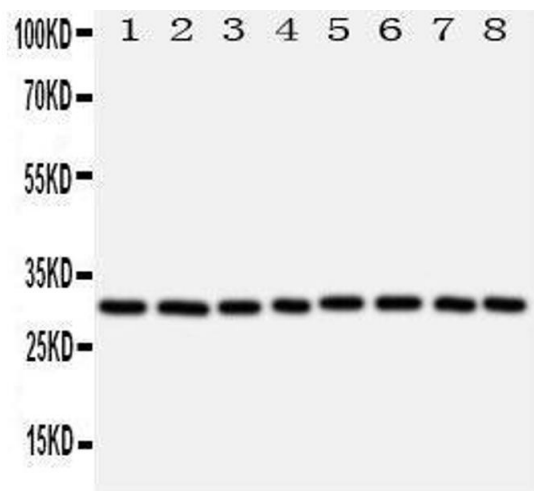
Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.  
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Expiry Date: 12 months

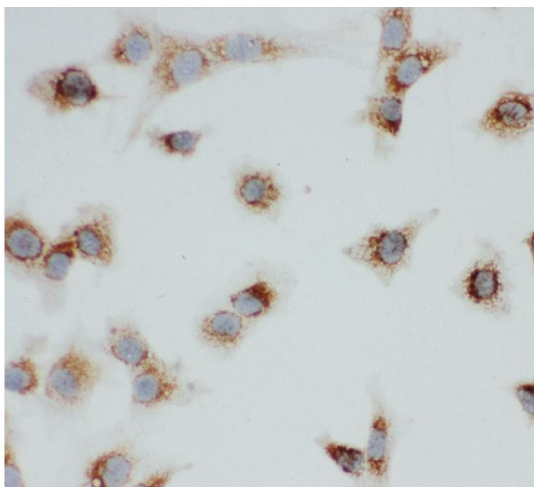
## Publications

Product cited in: Shen, Chen, Zhang, Du, Bai, Zhang, Jiang, Li, Wang, Zhu: "MicroRNA-27b Regulates Mitochondria Biogenesis in Myocytes." in: **PLoS ONE**, Vol. 11, Issue 2, pp. e0148532, (2016) ([PubMed](#)).



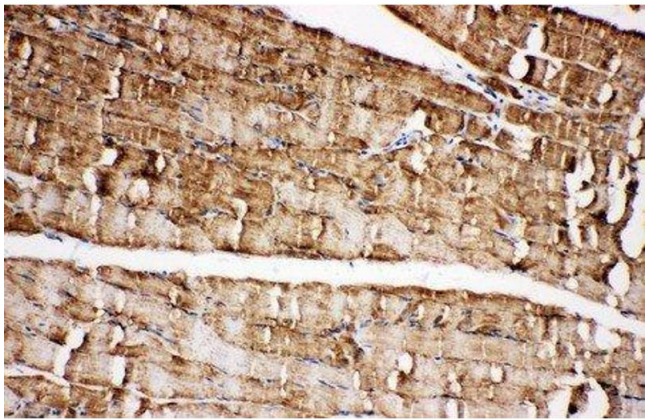
Western Blotting

Image 1.



Immunohistochemistry

Image 2. Anti-VDAC/Porin antibody, ICC ICC: NIH3T3 Cell



Immunohistochemistry

Image 3. Anti-VDAC/Porin antibody, IHC(P) IHC(P): Rat Skeletal Muscle Tissue

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN3044167.