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Goat Anti-VDAC2 (Internal) Antibody

Peptide-affinity purified goat antibody
Catalog # AF2143b

Specification

Goat Anti-VDAC2 (Internal) Antibody - Product Information

Application	**WB, E**
Primary Accession	P45880
Other Accession	NP_003366, 7417, 22334 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**31567**

Goat Anti-VDAC2 (Internal) Antibody - Additional Information

Gene ID 7417

Other Names
Voltage-dependent anion-selective channel protein 2, VDAC-2, hVDAC2, Outer mitochondrial membrane protein porin 2, VDAC2

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-VDAC2 (Internal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-VDAC2 (Internal) Antibody - Protein Information

Name VDAC2 (HGNC:12672)

Function
Non-selective voltage-gated ion channel that mediates the transport of anions and cations through

the mitochondrion outer membrane and plasma membrane (PubMed:8420959). The channel adopts an open conformation at zero mV and a closed conformation at both positive and negative potentials (PubMed:8420959). There are two populations of channels; the main that functions in a lower open-state conductance with lower ion selectivity, that switch, in a voltage-dependent manner, from the open to a low-conducting 'closed' state and the other that has a normal ion selectivity in the typical high conductance, 'open' state (PubMed:8420959). Binds various lipids, including the sphingolipid ceramide, the phospholipid phosphatidylcholine, and the sterols cholesterol and oxysterol (PubMed:31015432). Binding of ceramide promotes the mitochondrial outer membrane permeabilization (MOMP) apoptotic pathway (PubMed:31015432).

Cellular Location
Mitochondrion outer membrane. Membrane. Note=May localize to non-mitochondrial membranes.

Tissue Location
Expressed in erythrocytes (at protein level) (PubMed:27641616). Expressed in all tissues examined (PubMed:8420959)

Goat Anti-VDAC2 (Internal) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-VDAC2 (Internal) Antibody - Images

AF2143b (0.3 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary

incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-VDAC2 (Internal) Antibody - Background

This gene encodes a member of the voltage-dependent anion channel pore-forming family of proteins that are considered the main pathway for metabolite diffusion across the mitochondrial outer membrane. The encoded protein is also thought to be involved in the mitochondrial apoptotic pathway via regulation of BCL2-antagonist/killer 1 protein activity. Pseudogenes have been identified on chromosomes 1, 2, 12 and 21, and alternative splicing results in multiple transcript variants.

Goat Anti-VDAC2 (Internal) Antibody - References

Characterization of human VDAC isoforms: A peculiar function for VDAC3? De Pinto V, et al. Biochim Biophys Acta, 2010 Jun-Jul. PMID 20138821.
Expression and localization of voltage-dependent anion channels (VDAC) in human spermatozoa. Liu B, et al. Biochem Biophys Res Commun, 2009 Jan 16. PMID 19013129.
VDAC2 and aldolase A identified as membrane proteins of K562 cells with increased expression under iron deprivation. Valis K, et al. Mol Cell Biochem, 2008 Apr. PMID 18278581.
The layered structure of human mitochondrial DNA nucleoids. Bogenhagen DF, et al. J Biol Chem, 2008 Feb 8. PMID 18063578.
High-level expression, refolding and probing the natural fold of the human voltage-dependent anion channel isoforms I and II. Engelhardt H, et al. J Membr Biol, 2007 Apr. PMID 17828567.