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VDAC Antibody

Store at -20C
#4866

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IHC-P	Reactivity: H M R B	Sensitivity: Endogenous	MW (kDa): 32	Source/Isotype: Rabbit	UniProt ID: #P21796	Entrez-Gene Id: 7416
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Product Usage Information

Application

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:75

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

VDAC Antibody detects endogenous levels of total VDAC protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human VDAC-1. Antibodies are purified using protein A and peptide affinity chromatography.

Background

Voltage-dependent anion channel (VDAC), ubiquitously expressed and located in the outer mitochondrial membrane, is generally thought to be the primary means by which metabolites diffuse in and out of the mitochondria (1). In addition, this channel plays a role in apoptotic signaling. The change in mitochondrial permeability characteristic of apoptosis is mediated by Bcl-2 family proteins, which bind to VDAC, altering the channel kinetics (2). Homodimerization of VDAC may be a mechanism for changing mitochondrial permeability and supporting release of cytochrome c (3). In mammalian cells, there are three VDAC isoforms, VDAC1, which is the most widely expressed isoform, as well as VDAC2 and VDAC3 (4,5).

Background References

- Hodge, T. and Colombini, M. (1997) *J Membr Biol* 157, 271-9.
- Shimizu, S. et al. (1999) *Nature* 399, 483-7.
- Zheng, Y. et al. (2004) *Oncogene* 23, 1239-47.
- Craigen, W.J. and Graham, B.H. (2008) *J Bioenerg Biomembr* 40, 207-12.
- Yamamoto, T. et al. (2006) *J Proteome Res* 5, 3336-44.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **B:** Bovine

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