

#4661 Store at -20°C

## VDAC (D73D12) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P	H M R Mk	Endogenous	32	Rabbit IgG	#P21796	7416

## Product Usage Information

## Application

Western Blotting

## Dilution

1:1000

Immunohistochemistry (Paraffin)

1:100 - 1:400

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #16848.

## Specificity / Sensitivity

VDAC (D73D12) Rabbit mAb detects endogenous levels of total VDAC protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human VDAC-1 protein.

## 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

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

WB: Western Blotting IHC-P: Immunohistochemistry (Paraffin)

## Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster  
X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse  
GP: Guinea Pig Rab: rabbit All: all species expected

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