

Product datasheet for **RG209949**

VDAC1 (NM_003374) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VDAC1 (NM_003374) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	VDAC1
Synonyms:	PORIN; VDAC-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209949 representing NM_003374 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGTGCCACCCACGTATGCCGATCTTGGCAAATCTGCCAGGGATGTCTTCACCAAGGGCTATGGAT
TTGGCTTAATAAAGCTTGATTTGAAAACAAAATCTGAGAATGGATTGGAATTTACAAGCTCAGGCTCAGC
CAACACTGAGACCACAAAGTGACGGGCAGTCTGGAAACCAAGTACAGATGGACTGAGTACGGCCTGACG
TTTACAGAGAAAATGGAATACCGACAATACACTAGGCACCGAGATTACTGTGGAAGATCAGCTTGCACGTG
GACTGAAGCTGACCTTCGATTCATCCTTCTCACCTAACACTGGGAAAAAATGCTAAAAATCAAGACAGG
GTACAAGCGGGAGCACATTAACCTGGGCTGCGACATGGATTTTCGACATTGCTGGGCCTCCATCCGGGGT
GCTCTGGTGTAGGTTACGAGGGCTGGCTGGCCGGCTACCAAGATGAATTTGAGACTGCAAAATCCCGAG
TGACCCAGAGCAACTTTGCAGTTGGCTACAAGACTGATGAATTCAGCTTACACTAATGTGAATGACGG
GACAGAGTTTGGCGGCTCCATTTACCAGAAAGTGAACAAGAAGTTGGAGACCGCTGTCAATCTTGCTGG
ACAGCAGGAAACAGTAACACGCGCTTCGGAATAGCAGCCAAGTATCAGATTGACCTGACGCTGCTTCT
CGGCTAAAGTGAACAACCTCCAGCCTGATAGGTTTAGGATACACTCAGACTCTAAAGCCAGGTATTAAC
GACTGTCAGCTCTTCTGGATGGCAAGAACGTCAATGCTGGTGGCCACAAGCTTGGTCTAGGACTGGAA
TTTCAAGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG209949 representing NM_003374
Red=Cloning site Green=Tags(s)

MAVPPTYADLGKSARDVFTKGYGFGLIKLDLTKSENGLEFTSSGSANTETTAKVTGSLETKYRWTEYGLT
 FTEKWNTDNTLGTETITVEDQLARGLKLFDDSSFPNTGKKNKIKTGYKREHINLGCMDFDIAGPSIRG
 ALVLLGYEGWLAGYQMNFFETAKSRVTQSNFAVGKYTDEFQLHTNVNDGTEFGGSIYQKVNKKLETAVNLAW
 TAGNSNTRFGIAAKYQIDPDACFSKAVNNSLIGLGYTQTLKPGIKLTL SALLDGKNVNAGGHKLGLE
 FQA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003374

ORF Size: 849 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_003374.3](#)

RefSeq Size: 1806 bp

RefSeq ORF: 852 bp

Locus ID: 7416

UniProt ID: [P21796](#)

Cytogenetics: 5q31.1

Domains: Euk_porin

Protein Families: Ion Channels: Other

Protein Pathways: Calcium signaling pathway, Huntington's disease, Parkinson's disease

Gene Summary: This gene encodes a voltage-dependent anion channel protein that is a major component of the outer mitochondrial membrane. The encoded protein facilitates the exchange of metabolites and ions across the outer mitochondrial membrane and may regulate mitochondrial functions. This protein also forms channels in the plasma membrane and may be involved in transmembrane electron transport. Alternate splicing results in multiple transcript variants. Multiple pseudogenes of this gene are found on chromosomes 1, 2 3, 6, 9, 12, X and Y.[provided by RefSeq, Sep 2010]

Product images:



Circular map for RG209949