

Product datasheet for **RG232089**

Peroxiredoxin 1 (PRDX1) (NM_001202431) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Peroxiredoxin 1 (PRDX1) (NM_001202431) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: PRDX1
Synonyms: MSP23; NKEF-A; NKEFA; PAG; PAGA; PAGB; PRX1; PRXI; TDPX2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG232089 representing NM_001202431
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTTCAGGAAATGCTAAAATTGGGCACCCTGCCCAACTTCAAAGCCACAGCTGTTATGCCAGATG
 GTCAGTTAAAGATATCAGCCTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTACCCTTTGA
 CTTACCTTTGTGTGCCACGGAGATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAACTCAAC
 TGCCAAGTGATTGGTCTTCTGTGGATTCTCACTTCTGTCATCTAGCATGGTCAATACACCTAAGAAAC
 AAGGAGGACTGGGACCCATGAACATTCCCTTTGGTATCAGACCCGAAGCGCACCATTGCTCAGGATTATGG
 GGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGCCCTTTTATCATTGATGATAAGGGTATTCTCGG
 CAGATCACTGAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAGACTTTGAGACTAGTTCAGGCCCTCC
 AGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGAAACCTGGCAGTGATACCATCAAGCCTGA
 GTCCAAAAGAGCAAAGAATATTCTCCAAGCAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG232089 representing NM_001202431
 Red=Cloning site Green=Tags(s)

MSSGNAKIGHAPNFKATAVMPDQGFKDISLSDYKGYVVFYPLDFTFVCPTIIFSDRAEEFKLN
 CQVIGASVDSHFCHLAWVNTPKKQGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILR
 QITVNDLPVGRSVDLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

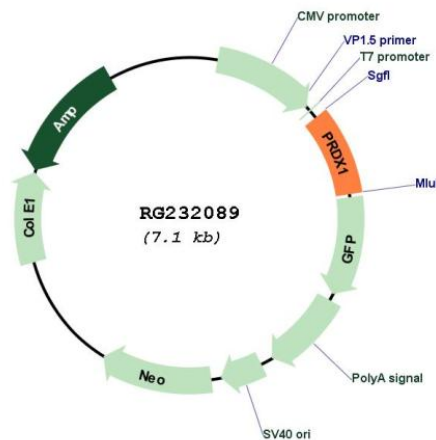


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001202431

ORF Size: 597 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_001202431.1](#), [NP_001189360.1](#)

RefSeq Size: 1046 bp

RefSeq ORF: 600 bp

Locus ID: 5052

UniProt ID: [Q06830](#)

Cytogenetics: 1p34.1

Gene Summary: This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein may play an antioxidant protective role in cells, and may contribute to the antiviral activity of CD8(+) T-cells. This protein may have a proliferative effect and play a role in cancer development or progression. Four transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq, Jan 2011]