

## Product datasheet for **RG221235**

### Peroxiredoxin 1 (PRDX1) (NM\_002574) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Peroxiredoxin 1 (PRDX1) (NM\_002574) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Peroxiredoxin 1  
**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:** >RG221235 representing NM\_002574  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTTCAGGAAATGCTAAAATTGGGCACCCTGCCCAACTTCAAAGCCACAGCTGTTATGCCAGATG  
 GTCAGTTAAAGATATCAGCCTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTACCCTTTGA  
 CTTACCTTTGTGTGCCACGGAGATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAACTCAAC  
 TGCCAAGTGATTGGTCTTCTGTGGATTCTCACTTCTGTCATCTAGCATGGTCAATACACCTAAGAAAC  
 AAGGAGGACTGGGACCCATGAACATTCCCTTTGGTATCAGACCCGAAGCGCACCATTGCTCAGGATTATGG  
 GGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGCCCTTTTATCATTGATGATAAGGGTATTCTTCGG  
 CAGATCACTGAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAGACTTTGAGACTAGTTCAGGCCCTCC  
 AGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGAAACCTGGCAGTGATACCATCAAGCCTGA  
 GTCCAAAAGAGCAAAGAATATTCTCCAAGCAGAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG221235 representing NM\_002574  
 Red=Cloning site Green=Tags(s)

MSSGNAKIGHAPNFKATAVMPDQGFKDISLSDYKGYVFFFYPLDFTFVCPTIIEAFSDRAEEFKLN  
 CQVIGASVDSHFCHLAWVNTPKKQGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILR  
 QITVNDLPVGRSVDLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**


**ACCN:** NM\_002574

**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\\_002574.3](#)

**RefSeq Size:** 1262 bp

**RefSeq ORF:** 600 bp

**Locus ID:** 5052

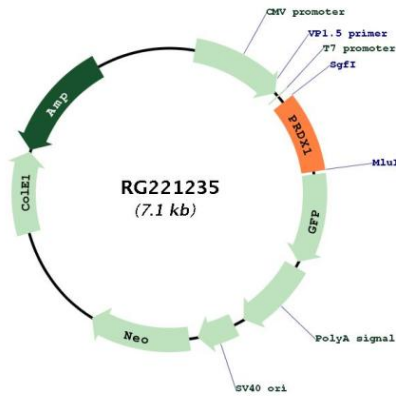
**UniProt ID:** [Q06830](#)

**Cytogenetics:** 1p34.1

**Domains:** AhpC-TSA

**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]

**Product images:**



Circular map for RG221235