

## Product datasheet for **RC205072**

### Peroxiredoxin 1 (PRDX1) (NM\_181697) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Peroxiredoxin 1 (PRDX1) (NM\_181697) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Peroxiredoxin 1  
**Synonyms:** MSP23; NKEF-A; NKEFA; PAG; PAGA; PAGB; PRX1; PRXI; TDPX2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC205072 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCTCAGGAAATGCTAAAATTGGGCACCCTGCCCAACTTCAAAGCCACAGCTGTTATGCCAGATG  
GTCAGTTTAAAGATATCAGCCTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTACCCTTTGA  
CTTCACCTTTGTGTGCCACGGAGATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAACTCAAC  
TGCCAAGTGATTGGTCTTCTGTGGATTCTCACTTCTGTCATCTAGCATGGTCAATACACCTAAGAAAC  
AAGGAGGACTGGGACCCATGAACATTCCTTTGGTATCAGACCCGAAGCGCACCATTTGCTCAGGATTATGG  
GGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGCCCTTTTATCATTGATGATAAGGGTATTCTTCGG  
CAGATCACTGTAATGACCTCCCTGTTGGCCGCTCTGTGGATGAGACTTTGAGACTAGTTCAGGCCCTCC  
AGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGAAACCTGGCAGTGATACCATCAAGCCTGA  
TGTCAAAAGAGCAAAGAATATTCTCCAAGCAGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC205072 protein sequence  
 Red=Cloning site Green=Tags(s)

MSSGNAKIGHAPNFKATAVMPDQFKDISLSDYKGYVVFYPLDFTFVCPTTEIIAFSDRAEEFKLN  
CQVIGASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILR  
QITVNDLPVGRSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6060\\_e06.zip](https://cdn.origene.com/chromatograms/mk6060_e06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_181697

**ORF Size:** 597 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_181697.3](#)

**RefSeq Size:** 1043 bp

**RefSeq ORF:** 600 bp

**Locus ID:** 5052

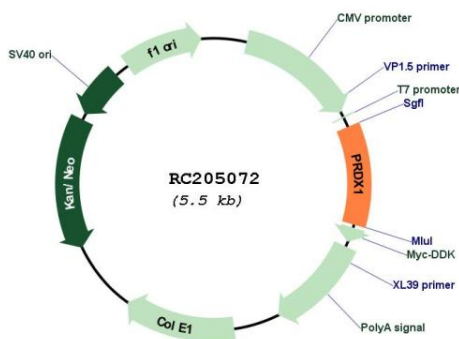
**UniProt ID:** [Q06830](#)

**Cytogenetics:** 1p34.1

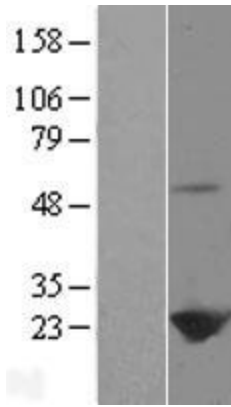
**MW:** 22.1 kDa

**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]

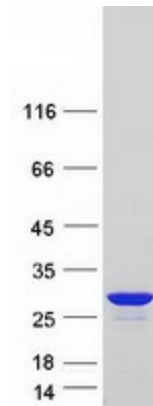
**Product images:**



Circular map for RC205072



Western blot validation of overexpression lysate (Cat# [LY403646]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC222186] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRDX1 protein (Cat# [TP305072]). The protein was produced from HEK293T cells transfected with PRDX1 cDNA clone (Cat# RC205072) using MegaTran 2.0 (Cat# [TT210002]).