

Product datasheet for RC222186

Peroxiredoxin 1 (PRDX1) (NM_181696) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Peroxiredoxin 1 (PRDX1) (NM_181696) 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: | >RC222186 representing NM_181696 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCTTCAGGAAATGCTAAATTTGGGCACCCTGCCCAACTTCAAAGCCACAGCTGTTATGCCAGATG
 GTCAGTTTAAAGATATCAGCCTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTACCCTCTTGA
 CTTACCTTTGTGTGCCACCGAGATCATTGCTTTCAGTGATAGGCGAGAAGATTAAAGAACTCAAC
 TGCCAAGTGATTGGTCTTCTGTGGATTCTCATTCTGTCATCTAGCATGGGTCAATACACCTAAGAAAC
 AAGGAGGACTGGGACCCATGAACATTCTTTGGTATCAGACCCGAAGCGCACCATTGCTCAGGATTATGG
 GGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTTTTATCATTGATGATAAGGGTATTCTTCGG
 CAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAGACTTTGAGACTAGTTCAGGCCTTCC
 AGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGGAAACCTGGCAGTGATACCATCAAGCCTGA
 TGTCAAAAGAGCAAAGAATATTCTCCAAGCAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

| | |
|-------------------|--|
| Protein Sequence: | >RC222186 representing NM_181696 Red=Cloning site Green=Tags(s) |
|-------------------|--|

MSSGNAKIGHAPNFKATAVMPDQGFKDLSLDYKGKYVFFFYPLDFTFVCPTETIIAFSDRAEEFKKLN
 CQVIGASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILR
 QITVNDLPVGRSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

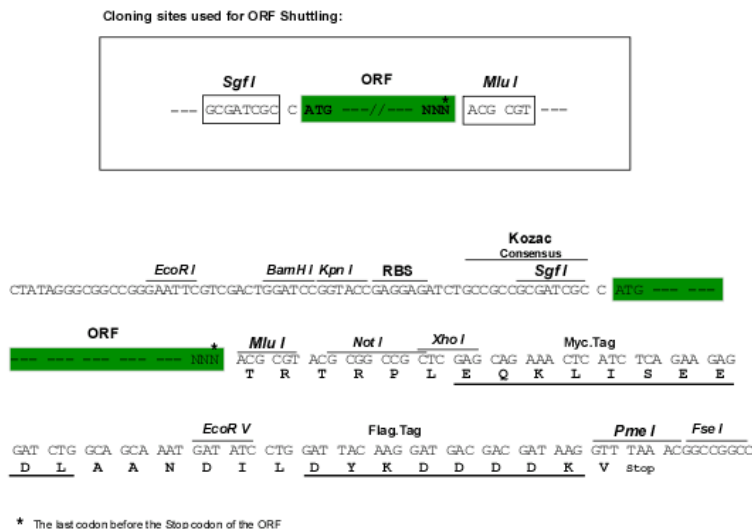
TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Chromatograms: https://cdn.origene.com/chromatograms/mk6060_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_181696

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_181696.2](#)

RefSeq Size: 1236 bp

RefSeq ORF: 600 bp

Locus ID: 5052

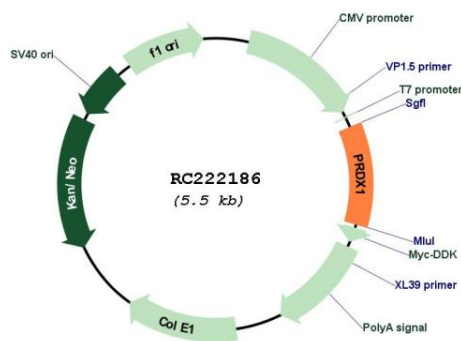
UniProt ID: Q06830

Cytogenetics: 1p34.1

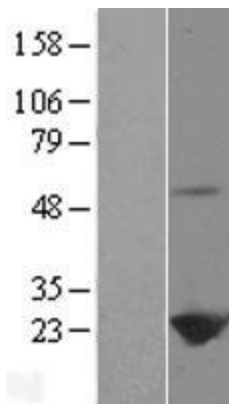
MW: 21.9 kDa

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]

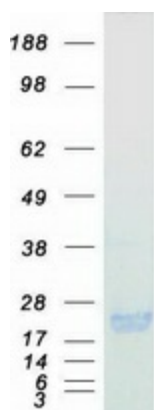
Product images:



Circular map for RC222186



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# [TP322186]). The protein was produced from HEK293T cells transfected with PRDX1 cDNA clone (Cat# RC222186) using MegaTran 2.0 (Cat# [TT210002]).