

Product datasheet for RC221235

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: 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: >RC221235 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTTCAGGAAATGCTAAAATTGGGCACCCTGCCCAACTTCAAAGCCACAGCTGTTATGCCAGATG
GTCAGTTAAAGATATCAGCCTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTACCCTTTGA
CTTCACCTTTGTGTGCCACGGAGATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAACTCAAC
TGCCAAGTGATTGGTCTTCTGTGGATTCTCACTTCTGTCATCTAGCATGGTCAATACACCTAAGAAAC
AAGGAGGACTGGGACCCATGAACATTCTTTGGTATCAGACCCGAAGCGCACCATTTGCTCAGGATTATGG
GGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGCCTTTTTATCATTGATGATAAGGGTATTCTTCGG
CAGATCACTGTAATGACCTCCCTGTTGGCCGCTCTGTGGATGAGACTTTGAGACTAGTTCAGGCCTTCC
AGTTCACTGACAAACATGGGGAAGTGTGCCAGCTGGCTGAAACCTGGCAGTGATACCATCAAGCCTGA
TGTCAAAAGAGCAAAGAATATTCTCCAAGCAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221235 protein sequence
 Red=Cloning site Green=Tags(s)

MSSGNAKIGHAPNFKATAVMPDQFKDISLSDYKGYVVFYPLDFTFVCPTTEIIAFSDRAEEFKKLN
CQVIGASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVLKADEGISFRGLFIIDDKGILR
QITVNDLPVGRSVDETLRRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

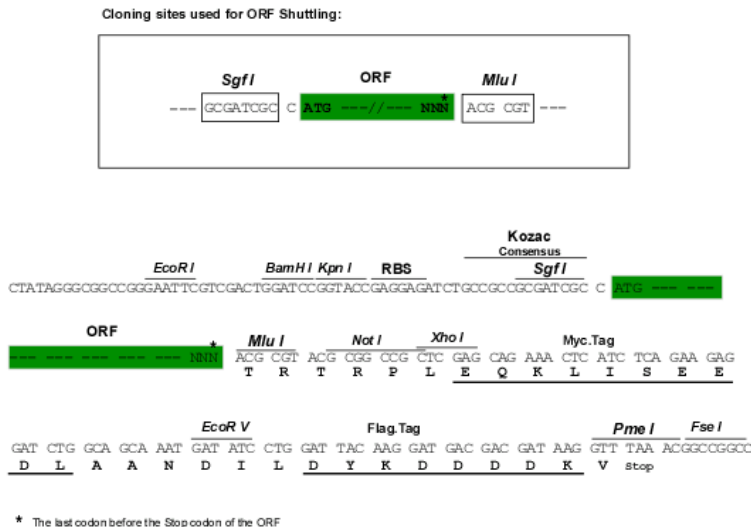


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Chromatograms: https://cdn.origene.com/chromatograms/mk6580_e09.zip

Restriction Sites: SgfI-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.

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

RefSeq: [NM_002574.3](#)

RefSeq Size: 1263 bp

RefSeq ORF: 600 bp

Locus ID: 5052

UniProt ID: [Q06830](#)

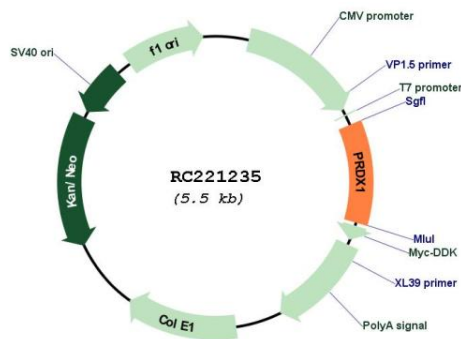
Cytogenetics: 1p34.1

Domains: AhpC-TSA

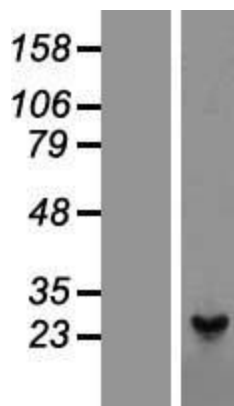
MW: 22.1 kDa

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]

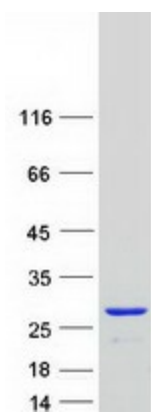
Product images:



Circular map for RC221235



Western blot validation of overexpression lysate (Cat# [LY419239]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221235 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRDX1 protein (Cat# [TP321235]). The protein was produced from HEK293T cells transfected with PRDX1 cDNA clone (Cat# RC221235) using MegaTran 2.0 (Cat# [TT210002]).