

## Product datasheet for **RC207780**

### Peroxiredoxin 6 (PRDX6) (NM\_004905) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Peroxiredoxin 6 (PRDX6) (NM_004905) Human Tagged ORF Clone        |
| Tag:                      | Myc-DDK   |
| Symbol:                   | PRDX6   |
| Synonyms:                 | 1-Cys; aiPLA2; AOP2; HEL-S-128m; LPCAT-5; NSGPx; p29; PRX         |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC207780 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCGGAGGTCTGCTTCTCGGGGACGTGGCTCCCAACTTTGAGGCCAATACCACCGTCGGCCGCATCC  
GTTTCCACGACTTCTGGGAGACTCATGGGGCATTCTTCTTCCACCCTCGGGACTTTACCCAGTGTG  
CACCACAGAGCTTGGCAGAGCTGCAAAGCTGGCACCAGAATTTGCCAAGAGGAATGTTAAGTTGATTGCC  
CTTTCAATAGACAGTGTGAGGACCATCTGCCTGGAGCAAGGATATCAATGCTTACAATTGTGAAGAGC  
CCACAGAAAAGTTACCTTTCCCATCATCGATGATAGGAATCGGGAGCTTGCCATCCTGTTGGGCATGCT  
GGATCCAGCAGAGAAGGATGAAAAGGGCATGCCTGTGACAGCTCGTGTGGTGTGTTTTGGTCCCTGAT  
AAGAAGCTGAAGCTGTCTATCCTCTACCCAGCTACCACTGGCAGGAACCTTGATGAGATTCTCAGGGTAG  
TCATCTCTCCAGCTGACAGCAGAAAAAGGGTTGCCACCCAGTTGATTGGAAGGATGGGGATAGTGT  
GATGGTCTTCCAACCATCCCTGAAGAAGAAGCAAAAACTTTCCCGAAAGGAGTCTTACCAAAAGAG  
CTCCCATCTGGCAAGAAATACCTCCGCTACACACCCCGCCT

**ACGCGT**ACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC207780 protein sequence  
Red=Cloning site Green=Tags(s)

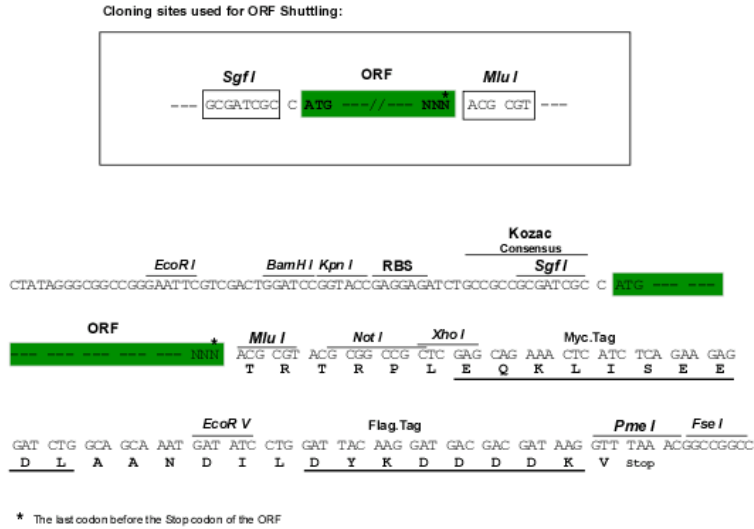
MPGGLLLGDVAPNFEANTTVGRIRFHDFLGDSWGILFSHPRDFTPVCCTELGRAAKLAPEFAKRNVKLIA  
 LSIDSVEDHLAWSKDINAYNCEEPTKLPFPIIDDRNRELAILLGMLDPAEKDEKMPVTARVVFVFGPD  
 KKLKLSILYPATTGRNFDEILRVVISLQLTAEKRVATPVDWKDGDSSVMVLPTIPEEEAKLFPKGVFTKE  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

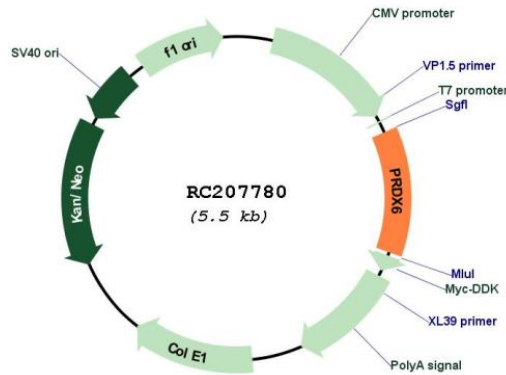
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6022\\_d09.zip](https://cdn.origene.com/chromatograms/mk6022_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_004905

**ORF Size:** 672 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.

**RefSeq:** [NM\\_004905.3](#)

**RefSeq Size:** 1715 bp

**RefSeq ORF:** 675 bp

**Locus ID:** 9588

**UniProt ID:** [P30041](#)

**Cytogenetics:** 1q25.1

**Domains:** AhpC-TSA

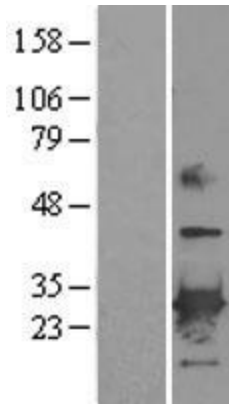
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Methane metabolism, Phenylalanine metabolism

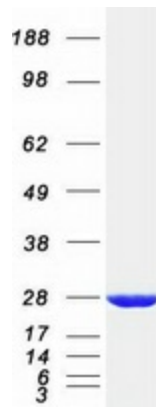
**MW:** 25 kDa

**Gene Summary:** The protein encoded by this gene is a member of the thiol-specific antioxidant protein family. This protein is a bifunctional enzyme with two distinct active sites. It is involved in redox regulation of the cell; it can reduce H<sub>2</sub>O<sub>2</sub> and short chain organic, fatty acid, and phospholipid hydroperoxides. It may play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury. [provided by RefSeq, Jul 2008]

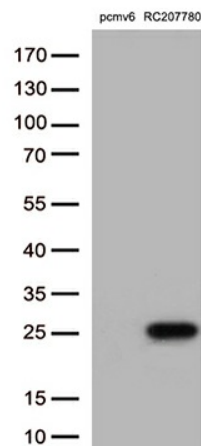
**Product images:**



Western blot validation of overexpression lysate (Cat# [LY401530]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207780 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRDX6 protein (Cat# [TP307780]). The protein was produced from HEK293T cells transfected with PRDX6 cDNA clone (Cat# RC207780) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PRDX6 (Cat# RC207780, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PRDX6 antibody (Cat# [TA813658])(1:1000)