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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:	Peroxiredoxin 6
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
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCGGAGGTCTGCTTCTCGGGGACGTGGCTCCCAACTTTGAGGCCAATACCACCGTCGGCCGCATCC
GTTTCCACGACTTTCTGGGAGACTCATGGGGCATTCTCTTCTCCCACCCTCGGGACTTTACCCCAGTGTG
CACCACAGAGCTTGGCAGAGCTGCAAAGCTGGCACCAGAATTTGCCAAGAGGAATGTTAAGTTGATTGCC
CTTTCAATAGACAGTGTTGAGGACCATCTTGCCTGGAGCAAGGATATCAATGCTTACAATTGTGAAGAGC
CCACAGAAAAGTTACCTTTTCCCATCATCGATGATAGGAATCGGGAGCTTGCCATCCTGTTGGGCATGCT
GGATCCAGCAGAGAAGGATGAAAAGGGCATGCCTGTGACAGCTCGTGTGGTGTTTGTTTTTGGTCCTGAT
AAGAAGCTGAAGCTGTCTATCCTCTACCCAGCTACCACTGGCAGGAACTTTGATGAGATTCTCAGGGTAG
TCATCTCTCTCCAGCTGACAGCAGAAAAAAGGGTTGCCACCCCAGTTGATTGGAAGGATGGGGATAGTGT
GATGGTCCTTCCAACCATCCCTGAAGAAGAAGCCAAAAAACTTTTCCCGAAAGGAGTCTTCACCAAAGAG
CTCCCATCTGGCAAGAAATACCTCCGCTACACACCCCAGCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC207780 protein sequence
Red=Cloning site Green=Tags(s)

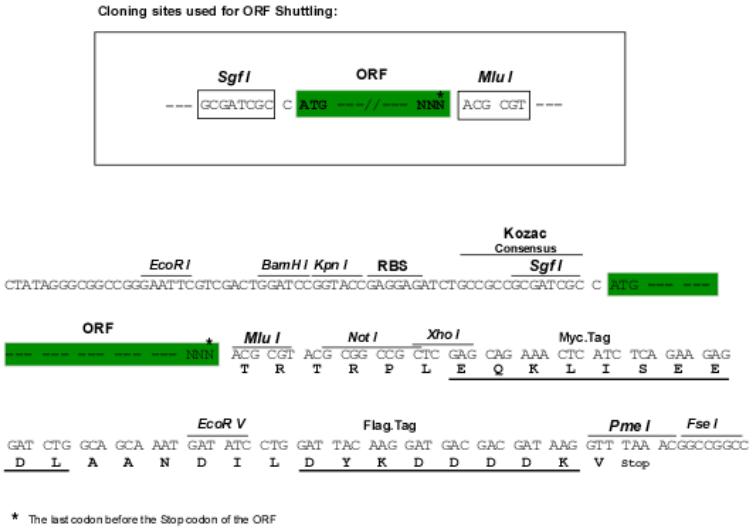
MPGGLLLGDVAPNFEANTTVGRIRFHDFLGDSWGILFSHPRDFTPVCTTELGRAAKLAPEFAKRNVKLIA
LSIDSVEDHLAWSKDINAYNCEEPTEKLPFPIIDDRNRELAILLGMLDPAEKDEKGMPVTARVVFVFGPD
KKLKLSILYPATTGRNFDEILRVVISLQLTAEKRVATPVDWKDGDSVMVLPTIPEEEAKKLFPKGVFTKE
LPSGKKYLRYTPQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6022_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004905

ORF Size: 672 bp

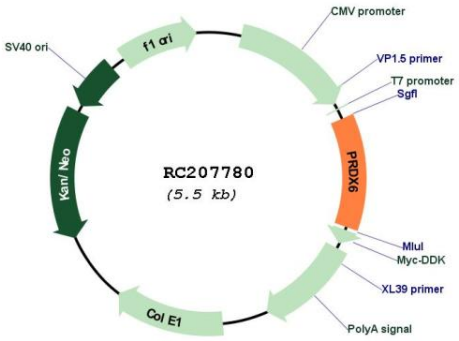
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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

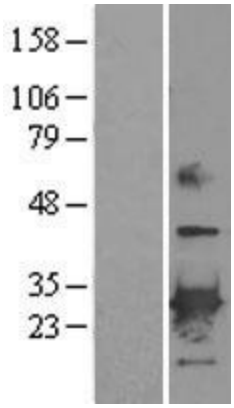
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_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(2)O(2) 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]

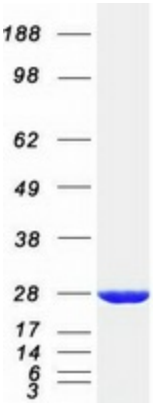
Product images:



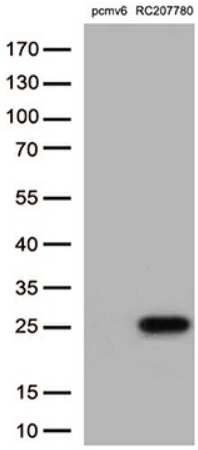
Circular map for RC207780



Western blot validation of overexpression lysate (Cat# [LY401530]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected 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)