

## Product datasheet for **SC111784**

### Peroxiredoxin 5 (PRDX5) (NM\_012094) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Peroxiredoxin 5 (PRDX5) (NM_012094) Human Untagged Clone
Tag:	Tag Free
Symbol:	Peroxiredoxin 5
Synonyms:	ACR1; AOEB166; B166; HEL-S-55; PLP; PMP20; PRDX6; prx-V; PRXV; SBB110
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC111784 sequence for NM_012094 edited (data generated by NextGen Sequencing)

```
ATGGGACTAGCTGGCGTGTGCGCCCTGAGACGCTCAGCGGCTATATACTCGTCGGTGGG
GCCGGCGGTCAGTCTGCGGCAGCGCAGCAAGACGGTGCAGTGAAGGAGAGTGGGCGTCT
GGCGGGGTCCGCAGTTTCAGCAGAGCCGCTGCAGCCATGGCCCCAATCAAGGTGGGAGAT
GCCATCCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGAG
CTGTTCAAGGGCAAGAAGGGTGTGCTGTTTGGAGTTCCTGGGCTTCACCCCTGGATGT
TCCAAGACACACCTGCCAGGGTTTGTGGAGCAGGCTGAGGCTCTGAAGGCCAAGGGAGTC
CAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAGTGGGCGGAGCC
CACAAGGGCGGAAGGCAAGGTTCCGGCTCCTGGCTGATCCCCTGGGCTTTGGGAAGGAG
ACAGACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGG
TTCTCCATGGTGGTACAGGATGGCATAGTGAAGGCCCTGAATGTGGAACCAAGATGGCACA
GGCCTCACCTGCAGCCTGGCACCAATATCATCTCACAGCTCTGA
```

Clone variation with respect to NM\_012094.4



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_012094 unedited  
 GTTANNTTTTGTATACGACTCATATAGGGCGGCCGCGATTCCGGCAGGAGGTGGGGCGGG  
 TATGGGACTAGCTGGCGTGTGCGCCCTGAGACGCTCAGCGGGCTATATACTCGTCGGTGG  
 GGCCGGCGGTCACTCTGCGGCAGCGGCAGCAAGACGGTGCAGTGAAGGAGAGTGGGCGTC  
 TGGCGGGTCCGAGTTTCAGCAGAGCCGCTGCAGCCATGGCCCAATCAAGGTGGGAGA  
 TGCCATCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGA  
 GCTGTTCAAGGGCAAGAAGGGTGTGCTGTTTGGAGTTCCCTGGGGCCTTCACCCCTGGATG  
 TTCCAAGACACACCTGCCAGGGTTTGTGGAGCAGGCTGAGGCTCTGAAGCCAAGGGAGT  
 CCAGGTGGTGGCCTGTCTGAGTGTAAATGATGCCTTTGTGACTGGCGAGTGGGGCCGAGC  
 CCACAAGGCGGAAGGCAAGGTTCCGGCTCCTGGCTGATCCCACTGGGGCCTTTGGGAAGGA  
 GACAGACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAG  
 GTTCTCCATGGTGTACAGGATGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCAC  
 AGGCCTCACCTGCAGCCTGGCACCAATATCATCTCACAGCTCTGAGGCCCTGGCCAGA  
 TTACTTCTCCACCCCTCCCTATCTCACCTGCCCCGCCCTGTGCTGTGGCCCTGCAATTG  
 GAATGTTGGCCAGATTTCTGCAATTAACACTTGTGGTTTGGCGGCAAATCAAATCCCCT  
 CCCTTTCCTCTATACCTCTCCTTCCCCCCCCCCCCCCCCCTCCCCCTCCCCTTCT  
 CTTCCCCCTATCCAACC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_012094 unedited  
 CCAAGTGTATTATGCAGAAATCTGGCCACATTCCAATTGCAGGGGCCCCAGCACAGGGC  
 TGGGCAGGTGAGATAGGGAGGGGTGGAGGAAGTAATCTGGCCAGGGCCTCAGAGCTGTG  
 AGATGATATTGGGTGCCAGGCTGCAGGTGAGGCCTGTGCCATCTGGTTCCACATTCAGGG  
 CCTTCACTATGCCATCCTGTACCACCATGGAGAACCTCTTGAGACGTGATTCCCAAAGA  
 TGGACACCAGCGAATCATCTAGTAATAAGTCTGTCTCCTTCCCAAAGGCCCCAGTGGGAT  
 CAGCCAGGAGCCGAACCTTGCCCTCCGCCCTTGTGGGCTCGGGCCCACTCGCCAGTCACAA  
 AGGCATCATTAACACTCAGACAGGCCACCACCTGGACTCCCTTGGCCTTCAGAGCCTCAG  
 CCTGCTCCACAAACCCTGGCAGGTGTGTCTTGGAAATCCAGGGGTGAAGGCCCCAGGAA  
 CTCCAAACAGCACACCCTTCTTGCCTTGAACAGCTCTGCCAGGTTACCTTGTTCCTG  
 GCTCCCCTTAAACACCTCCACTGCTGGGATGGCATCTCCACCTTGATTGGGGCCATGG  
 CTGCAGCGGCTCTGCTGAAACTGCGGACCCCGCCAGACGCCCACTCTCCTTCACTGCACC  
 GTCTTGTGCGGCTGCCGAGACTGACCGNCCGCCCCACCGACGAGTATATAGCCCGCTG  
 AGCGTCTCAGGGCGCACACCANNCTAGTNCATACCCGNCCACCCTCGTGCCCGATTC  
 GCGGGGCGCCCTATATGGAGTCGTATTACAAATTCTGACGGGTCACTAAACGAGCTCTGC  
 TTAATAGACCTNCCACGTTACGCCTACCGCCATTTGCGTAACGGGGCCGGGTATACGA  
 CATTTGAAAGTCGTTGGATTTGTGGCAAACAACCTCCATGACGCAATGGGGGAACTGGA  
 AATCCGGAGTCAACCGTTTCCGCCATGGGTGCGTCAACCTACCA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_012094

**Insert Size:**

860 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_012094.3](#), [NP\\_036226.1](#)

**RefSeq Size:** 959 bp

**RefSeq ORF:** 645 bp

**Locus ID:** 25824

**UniProt ID:** [P30044](#)

**Cytogenetics:** 11q13.1

**Domains:** AhpC-TSA

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein interacts with peroxisome receptor 1 and plays an antioxidant protective role in different tissues under normal conditions and during inflammatory processes. The use of alternate transcription start sites is thought to result in transcript variants that use different in-frame translational start codons to generate isoforms that are targeted to the mitochondrion (isoform L) or peroxisome/cytoplasm (isoform S). Multiple related pseudogenes have been defined for this gene. [provided by RefSeq, Nov 2017]  
Transcript Variant: This variant (1) represents the longest transcript, and encodes the longest isoform (L).