

Product datasheet for **SC322002**

Peroxiredoxin 2 (PRDX2) (NM_181738) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Peroxiredoxin 2 (PRDX2) (NM_181738) Human Untagged Clone
Tag:	Tag Free
Symbol:	Peroxiredoxin 2
Synonyms:	NKEFB; PRP; PRX2; PRXII; PTX1; TDPX1; TPX1; TSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for SC322002
 CGCGGGTCCACGCGTGTGATCGTCCGTGCGTCTAGCCTTTGCCACGCAGCTTTCAGTCA
 TGGCCTCCGGTAACGCGCGCATCGGAAAGCCAGCCCTGACTTCAAGGCCACAGCGGTGG
 TTGATGGCGCCTCAAAGAGGTGAAGCTGTCGGACTACAAAGGGAAGTACGTGGTCTCT
 TTTTCTACCCTCTGGACTTCACTTTTGTGTGCCCCACCGAGATCATCGCGTTCAGCAACC
 GTGCAGAGGACTCCGCAAGCTGGGCTGTGAAGTGTGGGCGTCTCGGTGACTCTCAGT
 TCACCCACTGGCTTGGTATGAGCAGGGGCCAAAGAGGGAGGTTGCAGCTAAGCTCACAC
 CCTCAGGTCCTAGCAGTGTGGCTTCGTGGCCATTGCTCAACCTCTGGAACCTGCGTTTCC
 CCATCGTGAAAATAATGAAACATTGCCGCCAAGTCTTTAAGGATGATGACAGTAATTA
 GCATTTGACAAGTGTGCTGATATAGAGTTGCAGATGCAACTCAGATGCAACTCTA
 TCTACTCTATGTACTTAGTTCAGGAGGGAGGCTGTGCTGCCCTATTTTCATGAAGATGG
 AAACCTCAGTTCACCGAAGTGAAGGGCTGTACCCCATGACACAGCTAGAGGAGGATGGGG
 ACTCTTAACACAGGCTCTCTGCTGGGTGATGCTGCAAGTTACAAGTACATGTGAAGCCAC
 TTAGCTGGAGCTGTGCCTCTCAAACCTCAGTCTTCCAGCCATGGGGATACAGTCTTGA
 CCCAACCCAGGGTGGGGTGGGTGAGGCTCCAGCGGCCTACTCTAAAGCCCTTATCTCC
 GGCTCCAGTGCTTATCACATTGGGCCACAGGGTGAAGACCCTGCTGTGCCAGGCATCC
 TGAGGCCCAACTCTGTCTCCCCACTCCAGGATCAACACCCCCCGAAAGAGGGAGGC
 TTGGGCCCCCTGAACATCCCCCTGCTTGCTGACGTGACCAGACGCTTGTCTGAGGATTAC
 GGCGTGTGAAAACAGATGAGGGCATTGGCTACAGGACTGTGGGACCCTCAGCCCGGCT
 CAGGGAGCGCCCTGCCCCCATCTCTGTGATGCTGGGACCACTCTGTACAATGTCTTCT
 CTGCCCCAGCCCTGTGGCTAGCAGCGGGTGGTGGTAGTCCCTTCTTGTCTCTGGCAG
 TGGGAGCTATCAGCTCCTCACTGGGAACCCTGATGTCTTCAGGGGCTCTTTATCATCGA
 TGGCAAGGGTGTCTTCCGCCAGATCACTGTTAATGATTTGCCTGTGGGACGCTCCGTGGA
 TGAGGCTCTGCGGCTGGTCCAGGCCTTCCAGTACACAGACGAGCATGGGGAAGTTTGCC
 CGCTGGCTGGAAGCCTGGCAGTGACACGATTAAGCCCAACGTGGATGACAGCAAGGAATA
 TTTCTCAAACACAATTAGGCTGGCTAACGGATAGTGAGCTTGTGCCCTGCCTAGGTGC
 CTGTGCTGGGTGTCCACCTGTGCCCCACCTGGGTGCCCTATGCTGACCCAGGAAAGGCC
 AGACCTGCCCTCAAACCTCCACAGTATGGGACCCTGGAGGGCTAGGCCAAGGCCTTCTC
 ATGCTCCACCTAGAAGCTGAATAGTGACGCCCTCCCCAAGCCACCCAGCCGCACACA
 GGCCTAGAGGTAACCAATAAAGTATTAGGGAAAGGTGAAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_181738

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none">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_181738.1 , NP_859428.1
RefSeq Size:	710 bp
RefSeq ORF:	429 bp
Locus ID:	7001
Cytogenetics:	19p13.13
Protein Families:	Druggable Genome
Gene Summary:	<p>This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein plays an antioxidant protective role in cells, and it may contribute to the antiviral activity of CD8(+) T-cells. The crystal structure of this protein has been resolved to 2.7 angstroms. This protein prevents hemolytic anemia from oxidative stress by stabilizing hemoglobin, thus making this gene a therapeutic target for patients with hemolytic anemia. This protein may have a proliferative effect and play a role in cancer development or progression. Related pseudogenes have been identified on chromosomes 5, 6, 10 and 13. [provided by RefSeq, Mar 2013]</p> <p>Transcript Variant: This variant (3) uses an alternative splice site, compared to variant 1, which results in a translational frameshift. The resulting protein (isoform c) has a distinct C-terminus and is shorter than isoform a.</p>