

## Product datasheet for **SC101510**

### Peroxiredoxin 2 (PRDX2) (AK022395) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Peroxiredoxin 2 (PRDX2) (AK022395) Human Untagged Clone
Tag:	Tag Free
Symbol:	Peroxiredoxin 2
Synonyms:	HEL-S-2a; NKEF-B; NKEFB; PRP; PRX2; PRXII; PTX1; TDPX1; TPX1; TSA
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for AK022395, the custom clone sequence may differ by one or more nucleotides

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ACGTCTTGGTTCGGGCCGGGCATAAAAGGCTTCGCGGCCAGGGCTCACTTGGCGCTGAGAACGCGGGTC
CACGCGTGTGATCGTCCGTGCGTCTAGCCTTTGCCACGCAGGTATGAACACCCGGAGTGCACCTGGCGG
GAGGACCCCTTCAGGCTGCTTTGGCCGATCTGACTTTAGTGCTGGCCGCTTTGCTTCCATCCGCT
ATAGTGGCTCCTTTGTCTTGCGGGGAAACCGAGGCCACAGCCTTGCAGCGCAGTCTGATCGCCCGA
CTTCCCGCCCTGCTCGTGCGGGCTCACTGTCTCTTCTGGGCTGGGGCTTGCACACCCGCTCCG
GCCGACTCGTCTGGGGTCTGGTGGCAGTGGTGGTCACTCGTCTGGTCAAGAGAGCGGGTCTC
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TGACTCAGTCATAGGGCCAGCACGCAGCGCACCTTGGGTTGGGAGGACAAAGTGTCTTCCGGGCGCA
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GAAGATGCTGTGCTCATGCCTGTAGATGCTGTGCTCATGCCTGTAGTCCACCTACTCTGGAGAGTGA
GGCAGAAGACTGCTTAGGCCAGGAATTTGAGTCGAGCCTAGGCAACATAGCAATACCCCATCTCTTTTT
TTTTTTTTTAAAGATGGGGTATTGGTT
    
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for AK022395 unedited ATACGACTCACTATAGGCGGCCGGAATCGGCACGGAGGCCAACCCAGGTGGGGTGGGTG AGGCTCCCAGCGGCCTACTCTAAAGCCCCTTATCTCCGGCCTCCAGTGCTTATCACATTG GGCCACAGGGTGAGGACCCTGCTGTGCCAGGCATCCTGAGGCCCAACTCTGTCTCCCC TACTCCCAGGATCAACACCCCCGAAAGAGGGAGGCTTGGGCCCCCTGAACATCCCCCT GCTTGTGACGTGACCAGACGCTTGTCTGAGGATTACGGCGTGCTGAAAACAGATGAGGG CATTGCCTACAGTACTGTGGACCCCTCAGCCCGGCTCAGGGAGCGCCCTGCCCCCAT CCTGTGATGCTGGGACCACTCCTGTACAATGTCTTCTCTGCCCCAGCCCTGTGGCTAGC AGCGGGTGGTTGGTAGTCCCTTCTGTCTCTGGCAGTGGGAGCTATCAGCTCCTCACTG GGAACCTGATGTCTTCAGGGCCCTCTTATCATCGATGGCAAGGGTGTCTTCGCCAGA TCACTGTTAATGATTTGCCTGTGGGACGCTCCGTGGATGAGGCTCTGCGGCTGGTCCAGG CCTCCAGTACACAGACGAGCATGGGGAAGGTGAGCAGATACACACATGACACATGGGTA CATACTGAGCGCCTNCGTCACTCATGCAAACATCACTGCCTGCCTTTACCTGTCCAG ATGGGTGNNTANGCCCCAAAGAAGATTCAGCTCANGGCTTTGTCTGCAGGATGTTTCTA ATGTGGTANGAGACAAATAACGCCTGACATTCAAACCAAGTGACAAAGGCCGNGCTCA GTGCTCACGGTTGTATTGCCAGCACTTTGGGAAGCTGTGGCACGTGGATCACCTGAGTTC ANGAGTCCGAAACCAGCCTGACAACATGGTTGAAAACCCGTCTCTACAAGACACANAAA ATAGCTGGA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	AK022395
<b>Insert Size:</b>	2500 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">AK022395.1</a>
<b>RefSeq Size:</b>	3180 bp
<b>RefSeq ORF:</b>	3180 bp
<b>Locus ID:</b>	7001
<b>Cytogenetics:</b>	19p13.13
<b>Protein Families:</b>	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 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]