

Product datasheet for **RG210709**

Peroxiredoxin 5 (PRDX5) (NM_012094) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Peroxiredoxin 5 (PRDX5) (NM_012094) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Peroxiredoxin 5
Synonyms:	ACR1; AOEB166; B166; HEL-S-55; PLP; PMP20; PRDX6; prx-V; PRXV; SBB110
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210709 representing NM_012094 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGACTAGCTGGCGTGTGCGCCCTGAGACGCTCAGCGGGCTATATACTCGTCGGTGGGCGCGGGTCT
AGTCTGCGGCAGCGGCAGCAAGACGGTGCAGTGAAGGAGAGTGGGCGTCTGGCGGGTCCGCAGTTTCAG
CAGAGCCGCTGCAGCCATGGCCCAATCAAGGTGGGAGATGCCATCCCAGCAGTGGAGGTGTTTGAAGG
GAGCCAGGAACAAGGTGAACCTGGCAGAGCTGTTCAAGGGCAAGAAGGGTGTGCTGTTTGGAGTTCCTG
GGCCTTCACCCCTGGATGTTCCAAGACACACCTGCCAGGTTTGTGGAGCAGGCTGAGGCTCTGAAGGC
CAAGGGAGTCCAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAGTGGGCGCAGGC
CACAAGGCGGAAGCAAGGTTCCGCTCCTGGCTGATCCCCTGGGCGCTTTGGGAAGGAGACAGACTTAT
TACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGGTTCTCCATGGTGGTACAGGA
TGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCAGAGCCCTCACCTGCAGCCTGGCACCCAATATC
ATCTCACAGCTC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210709 representing NM_012094
Red=Cloning site Green=Tags(s)

MGLAGVLCALRRSAGYILVGGAGGQSAAAAARRCSEGEWASGGVRSFSRAAAAMAPIKVGDAIPAVEVFEG
 EPGNKVNLAELEFKGKKGVLFGVPGAFTPGCSKTHLPGFVEQAEALKAKGVQVVAQLSVNDAFVTGEWGRA
 HKAEGKVRLADPTGAFGKETDLLLDDSLVSIFGNRRLKRF SMVVQDGIKALNVEPDGTGLTCSLAPNI
 ISQL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012094

ORF Size: 642 bp

OTI Disclaimer: 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_012094.4](#)

RefSeq Size: 959 bp

RefSeq ORF: 645 bp

Locus ID: 25824

UniProt ID: [P30044](#)

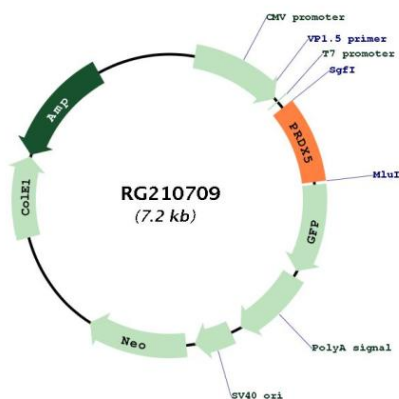
Cytogenetics: 11q13.1

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]

Product images:



Circular map for RG210709