

## Product datasheet for SC116546

### PDIA6 (NM\_005742) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDIA6 (NM_005742) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDIA6
Synonyms:	ERP5; P5; TXNDC7
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>OriGene ORF within SC116546 sequence for NM_005742 edited (data generated by NextGen Sequencing)

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ATGGCTCTCCTGGTGTGCTCGGTCTGGTGAGCTGTACCTTCTTTCTGGCAGTGAATGGTCTG
TATTCCTCTAGTGATGATGTGATCGAATTAACCCATCAAATTTCAACCGAGAAGTTATT
CAGAGTGATAGTTTGTGGCTTGTAGAATTCTATGCTCCATGGTGTGGTCACTGTCAAAGA
TTAACACCAGAATGGAAGAAAGCAGCAACTGCATTAAGATGTTGTCAAAGTTGGTGCA
GTTGATGCAGATAAGCATCATTCCCTAGGAGGTCAGTATGGTGTTCAGGGATTTCTACC
ATTAAGATTTTTGGATCCAACAAAAACAGACCAGAAGATTACCAAGGTGGCAGAAGTGGT
GAAGCCATTGTAGATGCTGCGCTGAGTGTCTGCGCCAGCTCGTGAAGGATCGCCTCGGG
GGACGAAGCGGAGGATACAGTTCTGGAAAACAAGGCAGAAGTGATAGTTCAAGTAAGAAG
GATGTGATTGAGCTGACAGACGACAGCTTTGATAAGAATGTTCTGGACAGTGAAGATGTT
TGGATGGTTGAGTTCTATGCTCCTTGGTGTGGACTGCAAAAACCTAGAGCCAGAGTGG
GCTGCCGAGCTTCAGAAGTAAAAGAGCAGACGAAAGGAAGAGTAAAAGTGGCAGCTGTG
GATGCTACAGTCAATCAGGTTCTGGCCTCCCGATACGGGATTAGAGGATTTCTACAATC
AAGATATTTTCAGAAAGGCGAGTCTCCTGTGGATTATGACGGTGGGCGGACAAGATCCGAC
ATCGTGTCCCGGCCCTTGATTTGTTTTCTGATAACGCCCCACCTCCTGAGCTGCTTGAG
ATTATCAACGAGGACATTGCCAAGAGGACGTGTGAGGAGCACCAGCTCTGTGTTGTGGCT
GTGCTGCCCCATATCCTTGATACTGGAGCTGCAGGCAGAAATTTCTATCTGGAAGTTCTT
CTGAAGTTGGCAGACAAATACAAAAAGAAAATGTGGGGTGGCTGTGGACAGAAGCTGGA
GCCAGTCTGAACCTTGAGACCGCTTGGGGATTGGAGGGTTTGGGTACCCCGCCATGGCC
GCCATCAATGCACGCAAGATGAAATTTGCTCTGCTAAAAGGCTCCTTCAGTGAGCAAGGC
ATCAACGAGTTTCTCAGGGAGCTCTTTTTGGGCGTGGCTCCACGGCACCTGTAGGAGGC
GGGGCTTTCCCTACCATCGTTGAGAGAGAGCCTTGGGACGGCAGGGATGGCGAGCTTCCC
GTGGAGGATGACATTGACCTCAGTGATGTGGAGCTTGATGACTTAGGGAAAGATGAGTTG
TGA

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Clone variation with respect to NM\_005742.2  
99 g=>a;426 g=>a;641 a=>g



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_005742 unedited  
 NNGGGGAAACNNNNNCCACCCCGCNGGGTTCAGAATTGTATACGACTCATATAGGCGGC  
 CGCGAAATCGGCACCAGCCGNCCTGGCCTGGGGCGGGACGTGGGCGCGGGGGCGCGGCGT  
 GCGGCACGCTGCAGGGCTGAAGCGGGCGGGCGGTGGGGACTGCACGTAGCCCGGCGCTC  
 GGCATGGCTCTCCTGGTCTCGGTCTGGTAGCTGTACCTTCTTCTGGCAGTGAATGGT  
 ATTCAGAGTGATAGTTTGTGGCTTGTAGAATTCTATGCTCCATGGTGTGGTCACTGTCAA  
 AGATTAACACCAGAATGGAAGAAAGCAGCAACTGCATTAAGAGATGTTGTCAAAGTTGGT  
 GCAGTTGATGCAGATAAGCATCATTCCCTAGGAGGTCAGTATGGTGTTCAGGGATTTCT  
 ACCATTAAGATTTTTGGATCCAACAAAAACAGACCAGAAGATTACCAAGGTGGCAGAAGT  
 GGTGAAGCCATTGTAGATGCTGCGCTGAGTGTCTGCGCCAGCTCGTGAAGGATCGCCTC  
 GGGGGACGAAGCGGAGGATACAGTTCTGGAAAACAAGGCAGAAGTATAGTTCAAGTAAG  
 AAGGATGTGATTGAGCTGACAGACGACAGCTNTGATAAGAATGTTCTGGACAGTGAAGAT  
 GTTTGGATGGNNTGAGTCTATGCTNCTTTGTGTGGACACTGCAAAAACCTANAGCCCAGA  
 GTGGGCTGCCGACGCTTCAAGAATAAAGAGCAGACGAAAGGAAGAAGTGAAGTGGCAGC  
 TGTGGATGCTACAGTCAAATCAGGTCTGGCCTCCCGATACGGNNATAAAGGATTNCTACA  
 TCAAGAAATTNCAAAAGGCCAGTCTCCTGTGGATATGACCGTGGGCGCACAGAAA

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_005742 unedited  
 NNNTTTTACTCTGNNACCGCGGCATNCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTT  
 TAGTGACAGTTGTATTTATTTTTTAAGTTACAATAAAATGCTCTCAAGTCTTTGAATG  
 TTCCAACAAATTCAAAACCTCATTCTGAATGTTTTACATAAATGCGAACTACCTGTTC  
 GCATTGGTAACCTGCTGCTGATTTTCAATGTTTAAACGGCTATTTTGAAGTTCATTAACAA  
 CATAGAAAGCCTTGAAGTGTATAACCAGCTAGATTCCTTAATAATTAGTCACTAGAGACA  
 GCCCAAAGACAAATATTGGGCAGGAAATCAGTTCTCACTGAGCCCGGTTCCATGTAATA  
 TCTCTGTTGTGGTGGGCATAGGTGGCACCATCTAAGAAAAGAGGTCTTGTTTTTTGT  
 AAAAAAGTTTGTGGGAGGAAAGACATCTGTGTATCACTTCAAAAATATTGATTTACTGCT  
 AAACATCACTCTGAATTTATGATGTGGATACTAACTTCATACATTTATCGGCATTGTCCA  
 AAATATTTTATCTTTAATGAAAAAGCCATTAATATTCAAATGAAGGGATCACATTA  
 AAAAAACCATACATAAGAAACAGCCTCCAAGAACATTCAGCAGCAGTCAGAGAGAAAA  
 TGTTTCGACAGCCAAGTTTTCTTCAAAATATTATGTGACAGAATACGACTCAATTCACCG  
 GCTACAACAATTCATAGAATTTTCAATGTTTTCTTGAGATGCAAAAGNTCACTGTTGCA  
 TGAGTTTTCAAATGACCAATCAGTACTACTTCTTGGTTAAAAGCCACTGNTAGAGTCATC  
 TGAGTGTANAGGATGTCCCTTCACTGCTGGAAAAATCCCTGGNCTCCAAGAAAGAAATG  
 GTCTGAAGCCTCTGNTGTGGCTTTACAACCTCAC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_005742

**Insert Size:**

2380 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](mailto: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](#)

**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\\_005742.2](#), [NP\\_005733.1](#)

**RefSeq Size:** 2344 bp

**RefSeq ORF:** 1323 bp

**Locus ID:** 10130

**UniProt ID:** [Q15084](#)

**Cytogenetics:** 2p25.1

**Domains:** thiored

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the disulfide isomerase (PDI) family of endoplasmic reticulum (ER) proteins that catalyze protein folding and thiol-disulfide interchange reactions. The encoded protein has an N-terminal ER-signal sequence, two catalytically active thioredoxin (TRX) domains, a TRX-like domain, and a C-terminal ER-retention sequence. This protein inhibits the aggregation of misfolded proteins and exhibits both isomerase and chaperone activity. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2016]

Transcript Variant: This variant (4) contains alternate 5' exon structure and it thus differs in the 5' UTR and 5' coding region, compared to variant 1. The encoded isoform (d) has a distinct N-terminus and is shorter than isoform a.