

Product datasheet for **RG222382**

PDI (PDIA2) (NM_006849) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDI (PDIA2) (NM_006849) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDI
Synonyms:	PDA2; PDI; PDIP; PDIR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222382 representing NM_006849
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCCGCCAGCTTCTGCCTGTACTGCTGCTGCTGCTGCTCAGGGCTTCGTGCCATGGGGTCAGGAAC
 AGGGAGCGAGGAGCCCTCGGAGGAGCCTCCAGAGGAGGAAATCCCAAGGAGGATGGGATCTTGGTGCT
 GAGCCGCCACACCCTGGCCCTGGCCCTGCGGGAGCACCTGCCCTGCTGGTGGAATTCTATGCCCGTGG
 TGTGGGCACTGCCAGGCCTGGCCCGGAGTACAGCAAGGCAGCTGCCGTGCTCGCGCCGAGTCAATGG
 TGGTCACGCTGGCCAAGGTGGATGGGCCCGCGCAGCGGAGCTGGCTGAGGAGTTTGGTGTACGGAGTA
 CCCTACGCTCAAGTTCTCCGCAATGGGAACCGCACGCACCCGGAGGAGTACACAGGACCACGGGACGCT
 GAGGGCATTGCCGAGTGGCTGCGACGGCGGGTGGGGCCAGTGCCATGCGGCTGGAGGACGAGGCGGCCG
 CCCAGGCGCTGATCGGTGGCCGGGACCTAGTGGTCATTGGCTTCTCCAGGACCTGCAGGACGAGGACGT
 GGCCACCTTCTTGGCCTTGGCCAGGACGCCCTGGACATGACCTTGGCCTCACAGACCGGCCCGCGGCTC
 TTTTCAGCAGTTTGGCCTACCAAGGACACTGTGGTTCTCTTCAAGAAATTTGATGAGGGGCGGGCAGACT
 TCCCCGTGGACGAGGAGCTTGGCCTGGACCTGGGGGATCTGTGCGGCTTCTGGTTCACACACAGCATGCG
 CCTGGTACCGAGTTCAACAGCCAGACGCTGCGCAAGATCTTCCGCGCCAGGATCCTCAACCACCTGCTG
 CTGTTTGTCAACCAGACGCTGGCTGCGCACCGGGAGCTCTAGCGGGCTTTGGGGAGGACGCTCCCCGCT
 TCCGGGGCAGGTGCTGTTCTGGTGGTGGACGTGGCGGGCGACAATGAGCACGTGCTGCAGTACTTTGG
 ACTCAAGGCTGAGGCAGCCCCACTCTGCGCTTGGTCAACCTTGAACCCTAAGAAGTATGCGCCTGTG
 GATGGGGGCCCTGTCAACGCAGCGTCCATCACTGCTTTTCCATGCAGTCTCAACGGCCAAGTCAAGC
 CCTATCTCCTGAGCCAGGAGATACCCCTGATTTGGGATCAGCGGCCAGTTAAGACCCTCGTGGGCAAGAA
 TTTTGAGCAGGTGGCTTTTACGAAACCAAGAATGTGTTTGTCAAGTTCTATGCCCGTGGTGCACCCAC
 TGCAAGGAGATGGCCCTGCCTGGGAGGATTGGCTGAGAAGTACCAAGACCACGAGGACATCATATTG
 CTGAGCTGGATGCCACGGCCAACGAGCTGGATGCCTTCGCTGTGCACGGCTTCCCTACTCTCAAGTACTT
 CCCAGCAGGGCCAGTCCGAAGGTGATTGAATACAAAAGCACCAGGGACCTGGAGACTTTCTCAAGTTC
 CTGGACAACGGGGCGTGTGCCACGGAGGAGCCCCGGAGGAGCCAGCAGCCCCGTTCCCGGAGCCAC
 CGGCAACTCCACTATGGGGTCCAAGGAGGAAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222382 representing NM_006849
 Red=Cloning site Green=Tags(s)

MSRQLLPVLLLLLLRASCWPWQEQGARSPSEEPPEEIPKEDGILVLSRHTLGLALREHPALLVEFYAPW
 CGHCQALAPEYSKAAAVLAAESMVVTLAKVDGPAQRELAEEFVTEYPTLKFFRNGNRTHPEEYTGPRDA
 EGIAEWLRRRVGPSAMRLEDEAAAQALIGGRDLVVIQFFQDLQDEDVATFLALAQDALDMTFGLTDRPRL
 FQQFGLTKDVTVLFKKFDEGRADFPVDEELGLDLGDLSRFLVTHSMRLVTEFNSQTSAKIFAARILNHLL
 LFNQTLAAHRELLAGFGEAAPFRGQVLFVVVDVAADNEHVLQYFGLKAEAAPTLRLVNLETTKKYAPV
 DGGPVTAASITAFCHAVLNGQVKPYLLSQEIPPDWDQRPVKTLVGKNFEQVAFDETKNVFVKFYAPWCTH
 CKEMAPAWELAEKYQDHEDIIAELDATANELDAFAVHGFPTLKYFPAGPGRKVIIEYKSTRDLETFSKF
 LDNGGVLPTTEPPEEPAAPFPEPPANSTMGSKDEL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_006849

ORF Size: 1575 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_006849.4](#)

RefSeq Size: 1726 bp

RefSeq ORF: 1578 bp

Locus ID: 64714

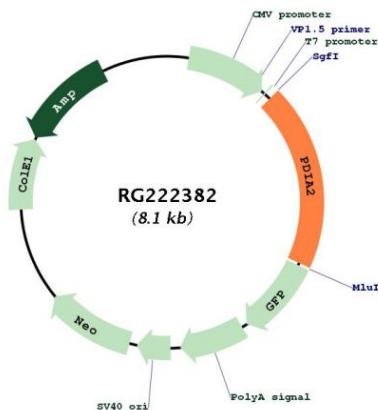
UniProt ID: [Q13087](#)

Cytogenetics: 16p13.3

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, two TRX-like domains and a C-terminal ER-retention sequence. The protein plays a role in the folding of nascent proteins in the endoplasmic reticulum by forming disulfide bonds through its thiol isomerase, oxidase, and reductase activity. The encoded protein also possesses estradiol-binding activity and can modulate intracellular estradiol levels. [provided by RefSeq, Sep 2017]

Product images:



Circular map for RG222382