OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC222382

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:	Myc-DDK
Symbol:	PDIA2
Synonyms:	PDA2; PDI; PDIP; PDIR
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

View online »

ORF Nucleotide Sequence:

>RC222382 representing NM_006849
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCCGCCAGCTTCTGCCTGTACTGCTGCTGCTGCTGCTCAGGGCTTCGTGCCCATGGGGTCAGGAAC
AGGGAGCGAGGAGCCCCTCGGAGGAGCCTCCAGAGGAGGAAATCCCCAAGGAGGATGGGATCTTGGTGCT
GAGCCGCCACACCCTGGGCCTGGCCCTGCGGGAGCACCCTGCCCTGCTGGTGGAATTCTATGCCCCGTGG
TGTGGGCACTGCCAGGCCCTGGCCCCCGAGTACAGCAAGGCAGCTGCCGTGCTCGCGGCCGAGTCAATGG
TGGTCACGCTGGCCAAGGTGGATGGGCCCGCGCAGCGCGAGCTGGCTGAGGAGTTTGGTGTGACGGAGTA
CCCTACGCTCAAGTTCTTCCGCAATGGGAACCGCACGCACCCGGAGGAGTACACAGGACCACGGGACGCT
GAGGGCATTGCCGAGTGGCTGCGACGGCGGGTGGGGCCCAGTGCCATGCGGCTGGAGGACGAGGCGGCCG
CCCAGGCGCTGATCGGTGGCCGGGACCTAGTGGTCATTGGCTTCTTCCAGGACCTGCAGGACGAGGACGT
GGCCACCTTCTTGGCCTTGGCCCAGGACGCCCTGGACATGACCTTTGGCCTCACAGACCGGCCGCGGCTC
TTTCAGCAGTTTGGCCTCACCAAGGACACTGTGGTTCTCTTCAAGAAGTTTGATGAGGGGCGGGCAGACT
TCCCCGTGGACGAGGAGCTTGGCCTGGACCTGGGGGATCTGTCGCGCTTCCTGGTCACACACAGCATGCG
CCTGGTCACGGAGTTCAACAGCCAGACGTCTGCCAAGATCTTCGCGGCCAGGATCCTCAACCACCTGCTG
CTGTTTGTCAACCAGACGCTGGCTGCGCACCGGGAGCTCCTAGCGGGCTTTGGGGAGGCAGCTCCCCGCT
TCCGGGGGCAGGTGCTGTTCGTGGTGGTGGACGTGGCGGCCGACAATGAGCACGTGCTGCAGTACTTTGG
ACTCAAGGCTGAGGCAGCCCCCACTCTGCGCTTGGTCAACCTTGAAACCACTAAGAAGTATGCGCCTGTG
GATGGGGGCCCTGTCACCGCAGCGTCCATCACTGCTTTCTGCCATGCAGTCCTCAACGGCCAAGTCAAGC
CCTATCTCCTGAGCCAGGAGATACCCCCTGATTGGGATCAGCGGCCAGTTAAGACCCTCGTGGGCAAGAA
TTTTGAGCAGGTGGCTTTTGACGAAACCAAGAATGTGTTTGTCAAGTTCTATGCCCCGTGGTGCACCCAC
TGCAAGGAGATGGCCCCTGCCTGGGAGGCATTGGCTGAGAAGTACCAAGACCACGAGGACATCATCATTG
CTGAGCTGGATGCCACGGCCAACGAGCTGGATGCCTTCGCTGTGCACGGCTTCCCTACTCTCAAGTACTT
CCCAGCAGGGCCAGGTCGGAAGGTGATTGAATACAAAAGCACCAGGGACCTGGAGACTTTCTCCAAGTTC
CTGGACAACGGGGGCGTGCTGCCCACGGAGGAGCCCCCGGAGGAGCCAGCAGCCCCGTTCCCGGAGCCAC
CGGCCAACTCCACTATGGGGTCCAAGGAGGAACTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222382 representing NM_006849
Red=Cloning site Green=Tags(s)

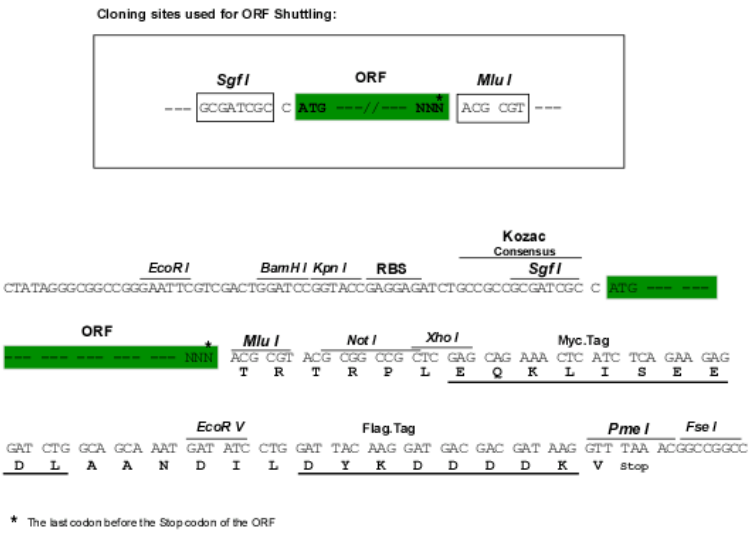
MSRQLLPVLLLLLLRASCPWGQEQGARSPSEEPPEEEIPKEDGILVLSRHTLGLALREHPALLVEFYAPW
CGHCQALAPEYSKAAAVLAAESMVVTLAKVDGPAQRELAEEFGVTEYPTLKFFRNGNRTHPEEYTGPRDA
EGIAEWLRRRVGPSAMRLEDEAAAQALIGGRDLVVIGFFQDLQDEDVATFLALAQDALDMTFGLTDRPRL
FQQFGLTKDTVVLFKKFDEGRADFPVDEELGLDLGDLSRFLVTHSMRLVTEFNSQTSAKIFAARILNHLL
LFVNQTLAAHRELLAGFGEAAPRFRGQVLFVVVDVAADNEHVLQYFGLKAEAAPTLRLVNLETTKKYAPV
DGGPVTAASITAFCHAVLNGQVKPYLLSQEIPPDWDQRPVKTLVGKNFEQVAFDETKNVFVKFYAPWCTH
CKEMAPAWEALAEKYQDHEDIIIAELDATANELDAFAVHGFPTLKYFPAGPGRKVIEYKSTRDLETFSKF
LDNGGVLPTEEPPEEPAAPFPEPPANSTMGSKEEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3257_b01.zip

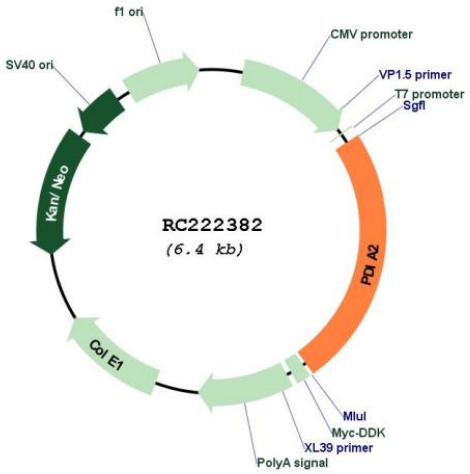
Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

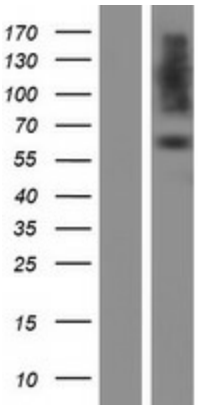
Plasmid Map:



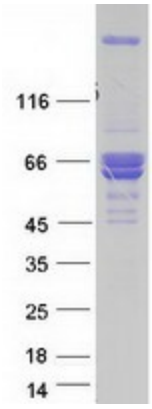
ACCN: NM_006849

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
MW:	58 kDa
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:



Western blot validation of overexpression lysate (Cat# [LY416382]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222382 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDIA2 protein (Cat# [TP322382]). The protein was produced from HEK293T cells transfected with PDIA2 cDNA clone (Cat# RC222382) using MegaTran 2.0 (Cat# [TT210002]).