

Product datasheet for **RG205940**

ERp57 (PDIA3) (NM_005313) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERp57 (PDIA3) (NM_005313) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ERp57
Synonyms:	ER60; ERp57; ERp60; ERp61; GRP57; GRP58; HEL-S-93n; HEL-S-269; HsT17083; P58; PI-PLC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205940 representing NM_005313
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGCCTCCGCCGCTAGCGCTGTTCCCGGGTGTGGCGTGCTTCTTGCCGCGGCCCGCCTCGCCGCTG
 CCTCCGACGTGCTAGAACTCACGGACGACAACCTTCGAGAGTCGCATCTCCGACACGGGCTCTGCGGGCCT
 CATGCTCGTCGAGTTCTTCGCTCCCTGGTGTGGACACTGCAAGAGACTTGACACCTGAGTATGAAGCTGCA
 GCTACCAGATTAAGGAATAGTCCCATAGCAAAGGTTGATTGCACTGCCAACACTAACACCTGTAATA
 AATATGGAGTCAGTGGATATCCAACCTGAAGATTTAGAGATGGTGAAGAAGCAGGTGCTTATGATGG
 ACCTAGGACTGCTGATGGAATTGTCAGCCACTGAAGAAGCAGGCAGGACCAGCTTCAGTGCCTCTCAGG
 ACTGAGGAAGAATTAAGAAATTCATTAGTATAAAGATGCCTCTATAGTAGGTTTTTCGATGATTCAT
 TCAGTGAGGCTCACTCCGAGTTCCTAAAAGCAGCCAGCAACTTGAGGGATAACTACCGATTTGCACATAC
 GAATGTTGAGTCTCTGGTGAACGAGTATGATGATAATGGAGAGGGTATCATCTTATTTTCGCTCTTACAT
 CTACTAACAAAGTTTGAGACAAGACTGTGGCATATACAGAGCAAAAAATGACCAGTGGCAAAAATAAAA
 AGTTTTATCCAGGAAAACATTTTTGGTATCTGCCCTCACATGACAGAAGACAATAAAGATTTGATACAGGG
 CAAGGACTTACTTATTGCTTACTATGATGTGGACTATGAAAAGAAGCCTAAAGGTTCCAACACTGGAGA
 AACAGGGTAATGATGGTGGCAAAGAAATTCCTGGATGCTGGGCACAACTCAACTTTGCTGTAGCTAGCC
 GCAAAACCTTTAGCCATGAACCTTCTGATTTTGGCTTGGAGAGCACTGCTGGAGAGATTCCTGTTGTTGC
 TATCAGAACTGCTAAAGGAGAGAAGTTTGTGATGCAGGAGGAGTCTCGCGTGATGGGAAGGCTCTGGAG
 AGGTTCTGCAGGATTACTTTGATGGCACTGAAGAGATACCTGAAGTCTGAACCTATCCAGAGAGCA
 ATGATGGGCCTGTGAAGTGTAGTGCAGAGAATTTTGTGAAATAGTGAATAATGAAATAAAGATGAT
 GCTGATTGAATTTATGCCCTTGGTGTGGTTCATTGTAAGAACCCTGGAGCCCAAGTATAAAGAAGCTTGGC
 GAGAAGCTCAGCAAAGACCCAAATATCGTCATAGCCAAGATGGATGCCACAGCCAATGATGTGCCTTCTC
 CATATGAAGTCAGAGTTTTCTACCATACTTCTCTCCAGCCAACAAGAAGCTAAATCCAAAGAAATA
 TGAAGGTGGCCGTGAATTAAGTATTTTATTAGCTATCTACAAGAGAAGCTACAAAACCCCTGTAATT
 CAAGAAGAAAACCAAGAAGAAGAAGGCACAGGAGGATCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG205940 representing NM_005313
 Red=Cloning site Green=Tags(s)

MRLRRLALFPGVALLAAARLAAASDVLELTDNFEISRI SDTGSAGLMLVEFFAPWCGHCKRLAPEYEAA
 ATRLKGIVPLAKVDCTANTNTCNKYGVSGYPTLKFIRDGEEAGAYDGPRTADGIVSHLKKQAGPASVPLR
 TEEEFKFI SDKDASIVGFFDSSFSEAHSEFLKAASNLRDNYRFAHTNVESSLVNEYDDNGEGIIILFRPSH
 LTNKFEDKTVAYTEQKMTSGKIKKFIQENIFGICPHMTEDNKDLIQGKDLLIAYYDVDYEKNAKGSNYWR
 NRVMVAKKFLDAGHKLNF AVASRKTFSHEL SDFGLESTAGEIPVVAIRTAKEKFMQEEF SRDGKALE
 RFLQDYFDGNLKYRKSEPIPESNDGPVKVVAENFDEIVNNENKDVLEFYAPWCGHCKNLEPKYKELG
 EKL SKDPNIVIAKMDATANDVPSPEYVRGFPFIYF SPANKKLNPKKYEGGREL SDFISYLQREATNPPVI
 QEEKPKKKKKAQEDL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_005313

ORF Size: 1515 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_005313.4](#), [NP_005304.3](#)

RefSeq Size: 3060 bp

RefSeq ORF: 1518 bp

Locus ID: 2923

UniProt ID: [P30101](#)

Cytogenetics: 15q15.3

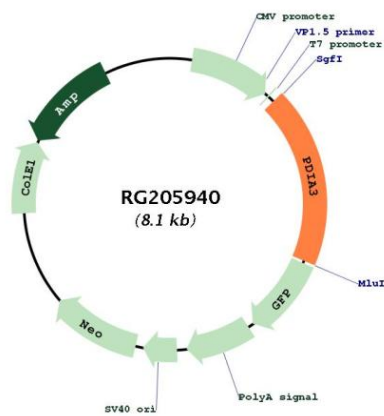
Domains: thioered

Protein Families: Druggable Genome

Protein Pathways: Antigen processing and presentation

Gene Summary: This gene encodes a protein of the endoplasmic reticulum that interacts with lectin chaperones calreticulin and calnexin to modulate folding of newly synthesized glycoproteins. The protein was once thought to be a phospholipase; however, it has been demonstrated that the protein actually has protein disulfide isomerase activity. It is thought that complexes of lectins and this protein mediate protein folding by promoting formation of disulfide bonds in their glycoprotein substrates. This protein also functions as a molecular chaperone that prevents the formation of protein aggregates. [provided by RefSeq, Dec 2016]

Product images:



Circular map for RG205940