

Product datasheet for **RC208445**

ERO1LB (ERO1B) (NM_019891) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERO1LB (ERO1B) (NM_019891) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ERO1LB
Synonyms:	Ero1beta; ERO1LB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208445 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCCAAGGGGTCGCGCGGCAGGCGCTGGGCAGGGGTAGCGGCCGGTGCAGCTGCTGGTACCC
 TGAGCTTCTCGGAGCGTCGTCGAGGCCAGGCTACTGGAGTTCTGGATGATTGCTTGTGTGATATTGA
 CAGCATCGATAACTTCAATACCTACAAAATCTCCCAAATAAAAAATGCAAGAGAGAGACTATTTT
 CGTTATTACAAGGTTAATCTGAAGCGACCTTGTCTTTCTGGGCAGAAGATGGCCACTGTTCAATAAAAG
 ACTGTCATGTGGAGCCCTGTCCAGAGAGTAAAATCCGGTTGGAATAAAAGCTGGGCATTCTAATAAGTA
 CTTGAAAATGGCAAACAATACCAAAGAATTAGAAGTTTGTGAGCAAGCTAATAAACTGGGAGCAATTAAC
 AGCACATTAAGTAATCAAAGCAAAGAAGCTTTCATTGACTGGCAAGATATGATGATTACGGGATCACT
 TTTGTGAACCTTGATGATGAGAGATCTCCAGCTGCTCAGTATGTAGACCTATTGCTGAACCCAGAGCGTTA
 CACTGGCTATAAAGGGACCTCTGCATGGAGAGTGTGGAACAGCATCTATGAAGAGAACTGTTTCAAGCCT
 CGATCTGTTTATCGTCTTTAAATCCTCTGGCGCCTAGCCGAGGCGAAGATGATGGAGAATCATTCTACA
 CATGGCTAGAAGGTTTGTGTCTGGAGAAAAGAGTCTTCTATAAGCTTATATCGGGACTTCATGCTAGCAT
 CAATTTACATCTATGCGCAAATTATCTTTTGAAGAACTGGGGTAAGCCAGTTGGGGACCTAATATT
 AAAGAATCAAACACCGCTTTGACCCTGTGAAACCAAGGGAGAAGTCCAAGAAGGCTCAAGAATCTTT
 ACTTTTATACTTGATTGAGCTTCGAGCTTTGTCAAAGGTGGCTCCATATTTGAGCGCTCAATTGTCGA
 TCTTTACACTGGAATGCAGAAGAAGATGCTGACAAAACTCTTCTACTGAATATCTTTCAAGATACA
 AAGTCTTTCCCATGCATTTGATGAGAAATCCATGTTGCAGGTGACAAAAAGGGCCAAAGTCACTAA
 AGGAGGAATCCGATTACATTTCAAGAATATCTCCCGTATAATGGACTGTGTTGGATGTGACAAAATCAG
 ATTATGGGGAAAATTACAGACTCAGGGTTTAGGAACTGCCCTGAAGATATTATTCTGAAAAAGAATC
 CAAAAGCTTCCAGAGAATAGTCCATCTAAAGGCTTCCAACACCCGACAGGAAATAGTTGCTCTTTTAA
 ATGCTTTTGAAGGCTTCTACAAGTATAAGAGACTTACAGAATTTTAAAGTCTTATTACAACACAGTAG
 G

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208445 protein sequence
 Red=Cloning site Green=Tags(s)

MSQGVRRAGAGQGVAADVQLLVTL SFLRSVVEAQTGVLDLDCIDSIDNFNTYKIFPKIKKLQERDYF
 RYYKVNLRPCPFWAEDGHCSIKDCHVEPCPEKIPVGIKAGHSNKYLKMANNTKELEVCEQANKLGAIN
 STLSNQSKEAFIDWARYDDSRDHFCELDERSPAAQYVDLLNPERYTYGKTSARVWNSIYEENCFKP
 RSVYRPLNPLAPSRGEDDGE SFYTWLEGLCLEKRVFYKLISGLHASINLHLCANYLLEETWGPSPWPNL
 KEFKHRFPVETKGEPRRLKNLYFLYLIELRALSKVAPYFERSIVDLYTGNAEEDADTKLLLNIFQDT
 KSFPMHFDEKSMFAGDKKGAKSLKEEFRLHFKNISRIMDCVGDKCRLWGKLQTQGLGTALKILFSEKEI
 QKLPENSPSKGFQLTRQEI VALLNAFGRLLSTSIRD LQNFVLLQHSR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6126_d11.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_019891

ORF Size: 1401 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_019891.2](#), [NP_063944.2](#)

RefSeq Size: 5070 bp

RefSeq ORF: 1404 bp

Locus ID: 56605

UniProt ID: [Q86YB8](#)

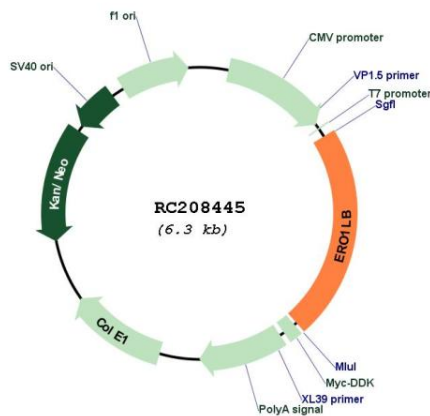
Cytogenetics: 1q42.3

Domains: ERO1

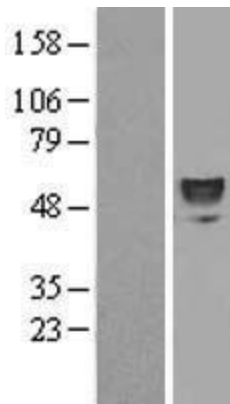
MW: 53.5 kDa

Gene Summary: Oxidoreductase involved in disulfide bond formation in the endoplasmic reticulum. Efficiently reoxidizes P4HB/PDI, the enzyme catalyzing protein disulfide formation, in order to allow P4HB to sustain additional rounds of disulfide formation. Other protein disulfide isomerase family members can also be reoxidized, but at lower rates compared to P4HB, including PDIA2 (50% of P4HB reoxidation rate), as well as PDIA3, PDIA4, PDIA6 and NXNDC12 (<10%). Following P4HB reoxidation, passes its electrons to molecular oxygen via FAD, leading to the production of reactive oxygen species (ROS) in the cell. May be involved in oxidative proinsulin folding in pancreatic cells, hence may play a role in glucose homeostasis. [UniProtKB/Swiss-Prot Function]

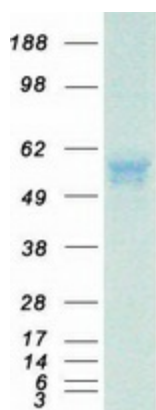
Product images:



Circular map for RC208445



Western blot validation of overexpression lysate (Cat# [LY402743]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208445 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERO1B protein (Cat# [TP308445]). The protein was produced from HEK293T cells transfected with ERO1B cDNA clone (Cat# RC208445) using MegaTran 2.0 (Cat# [TT210002]).