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Product datasheet for RG208445

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:	TurboGFP
Symbol:	ERO1LB
Synonyms:	Ero1beta; ERO1LB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG208445 representing NM_019891
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCCAAGGGGTCCGCCGGGCAGGCGCTGGGCAGGGGGTAGCGGCCGCGGTGCAGCTGCTGGTCACCC
TGAGCTTCCTGCGGAGCGTCGTCGAGGCGCAGGTCACTGGAGTTCTGGATGATTGCTTGTGTGATATTGA
CAGCATCGATAACTTCAATACCTACAAAATCTTCCCCAAAATAAAAAAATTGCAAGAGAGAGACTATTTT
CGTTATTACAAGGTTAATCTGAAGCGACCTTGTCCTTTCTGGGCAGAAGATGGCCACTGTTCAATAAAAG
ACTGTCATGTGGAGCCCTGTCCAGAGAGTAAAATTCCGGTTGGAATAAAAGCTGGGCATTCTAATAAGTA
CTTGAAAATGGCAAACAATACCAAAGAATTAGAAGTTTGTGAGCAAGCTAATAAACTGGGAGCAATTAAC
AGCACATTAAGTAATCAAAGCAAAGAAGCTTTCATTGACTGGGCAAGATATGATGATTCACGGGATCACT
TTTGTGAACTTGATGATGAGAGATCTCCAGCTGCTCAGTATGTAGACCTATTGCTGAACCCAGAGCGTTA
CACTGGCTATAAAGGGACCTCTGCATGGAGAGTGTGGAACAGCATCTATGAAGAGAACTGTTTCAAGCCT
CGATCTGTTTATCGTCCTTTAAATCCTCTGGCGCCTAGCCGAGGCGAAGATGATGGAGAATCATTCTACA
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CAATTTACATCTATGCGCAAATTATCTTTTGGAAGAAACCTGGGGTAAGCCCAGTTGGGGACCTAATATT
AAAGAATTCAAACACCGCTTTGACCCTGTGGAAACCAAGGGAGAAGGTCCAAGAAGGCTCAAGAATCTTT
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TCTTTACACTGGAAATGCAGAAGAAGATGCTGACACAAAAACTCTTCTACTGAATATCTTTCAAGATACA
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AGGAGGAATTCCGATTACATTTCAAGAATATCTCCCGTATAATGGACTGTGTTGGATGTGACAAATGCAG
ATTATGGGGAAAATTACAGACTCAGGGTTTAGGAACTGCCCTGAAGATATTATTCTCTGAAAAAGAAATC
CAAAAGCTTCCAGAGAATAGTCCATCTAAAGGCTTCCAACTCACCCGACAGGAAATAGTTGCTCTTTTAA
ATGCTTTTGGAAGGCTTTCTACAAGTATAAGAGACTTACAGAATTTTAAAGTCTTATTACAACACAGTAG
G

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

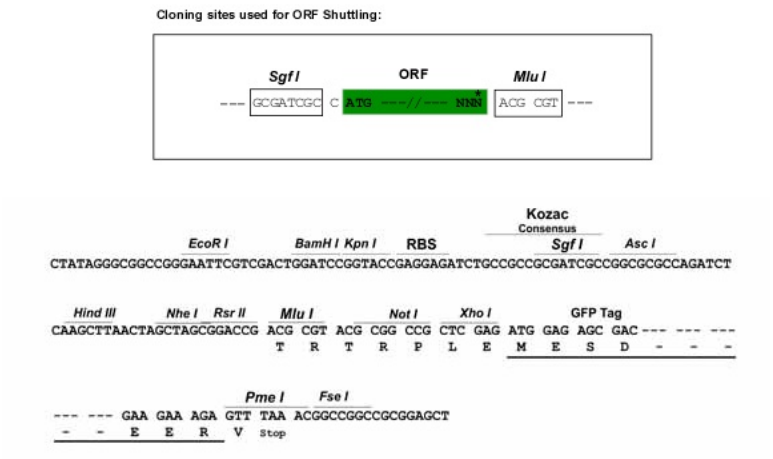
>RG208445 representing NM_019891
Red=Cloning site Green=Tags(s)

MSQGVRRAGAGQGVAAAVQLLVTLSFLRSVVEAQVTGVLDDCLCDIDSIDNFNTYKIFPKIKKLQERDYF
RYYKVNLKRPCPFWAEDGHCSIKDCHVEPCPESKIPVGIKAGHSNKYLKMANNTKELEVCEQANKLGAIN
STLSNQSKEAFIDWARYDDSRDHFCELDDERSPAAQYVDLLLNPERYTGYKGTSAWRVWNSIYEENCFKP
RSVYRPLNPLAPSRGEDDGESFYTWLEGLCLEKRVFYKLISGLHASINLHLCANYLLEETWGKPSWGPNI
KEFKHRFDPVETKGEGPRRLKNLYFLYLIELRALSKVAPYFERSIVDLYTGNAEEDADTKTLLLNIFQDT
KSFPMHFDEKSMFAGDKKGAKSLKEEFRLHFKNISRIMDCVGCDKCRLWGKLQTQGLGTALKILFSEKEI
QKLPENSPSKGFQLTRQEIVALLNAFGRLSTSIRDLQNFKVLLQHSR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



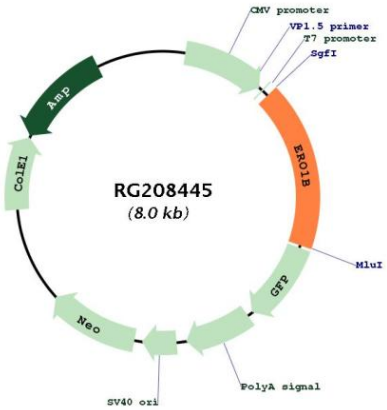
ACCN:	NM_019891
ORF Size:	1401 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	2977 bp
RefSeq ORF:	1404 bp
Locus ID:	56605
UniProt ID:	Q86YB8

Cytogenetics: 1q42.3

Domains: ERO1

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 RG208445