

Product datasheet for **SC128104**

ERO1LB (ERO1B) (NM_019891) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERO1LB (ERO1B) (NM_019891) Human Untagged Clone
Tag:	Tag Free
Symbol:	ERO1LB
Synonyms:	Ero1beta; ERO1LB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC128104 sequence for NM_019891 edited (data generated by NextGen Sequencing)

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ATGAGCCAAGGGGTCCGCCGGCAGGCGCTGGGCAGGGGGTAGCGGCCGCGGTGCAGCTG
CTGGTCACCCTGAGCTTCTCGCGAGCGTCGTCGAGGCGCAGGTCCTGGAGTTCTGGAT
GATTGCTTGTGTGATATTGACAGCATCGATAACTTCAATACCTACAAAATCTTCCCAAA
ATAAAAAATTGCAAGAGAGAGACTATTTTCGTTATTACAAGGTTAATCTGAAGCGACCT
TGTCTTTCTGGGCAGAAGATGGCCACTGTTCAATAAAAAGACTGTCATGTGGAGCCCTGT
CCAGAGAGTAAAATTCGGTTGGAATAAAAAGCTGGGCATTCTAATAAGTACTTGAAAATG
GCAACAATACCAAAGAATTAGAAGATTGTGAGCAAGCTAATAAACTGGGAGCAATTAAC
AGCACATTAAGTAATCAAAGCAAAGAAGCTTTCATTGACTGGGCAAGATATGATGATTCA
CGGGATCACTTTTGTGAACCTTGTGATGAGAGATCTCCAGCTGCTCAGTATGTAGACCTA
TTGCTGAACCCAGAGCGTTACACTGGCTATAAAGGGACCTCTGCATGGAGAGTGTGGAAC
AGCATCTATGAAGAGAACTGTTTCAAGCCTCGATCTGTTTATCGTCTTTAAATCCTCTG
GCGCCTAGCCGAGGCGAAGATGATGGAGAATCATTCTACACATGGCTAGAAGTTTGTGT
CTGGAGAAAAGAGTCTTCTATAAGCTTATATCGGGACTTCATGCTAGCATCAATTTACAT
CTATGCGCAAATATCTTTTGAAGAAACCTGGGGTAAGCCAGTTGGGGACCTAATATT
AAGAATTCAAACACCGCTTTGACCCTGTGGAACCAAGGGAGAAGGTCCAAGAAGGCTC
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TCCATGTTTGCAGGTGACAAAAAAGGGGCCAAGTCACTAAAGGAGGAATCCGATTACAT
TTCAAGAATATCTCCCGTATAATGGACTGTGTTGGATGTGACAAATGCAGATTATGGGGA
AAATTACAGACTCAGGGTTTAGGAAGTCCCTGAAGATATTATTCTGAAAAAGAAATC
CAAAGCTTCCAGAGAATAGTCCATCTAAAGGCTTCCAACCTCACCCGACAGGAAATAGTT
GCTCTTTTAAATGCTTTTGAAGGCTTTCTACAAGTATAAGAGACTTACAGAATTTTAAA
GTCTTATTACAACAGAGTAGGTAA
    
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Clone variation with respect to NM_019891.3
1395 c=>g

5' Read Nucleotide Sequence: >OriGene 5' read for NM_019891 unedited

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TTTGTATACGACTCATATAGGGCGCCGCAATTCGCACGAGGGAAAGAGTCGCCTGCCT
CCGGACCGGAGTGCAGACCTCTGACCCTGGAGTCGCTCGGCCGCTGGGAACCGTCCCTT
GGGTCGTCGCCTGGGCCGCCCGTCGTTCCCGGCCCGAGGGGTCCGGCTGGCCGCGGTG
TGGGTAGAGGTGAGCATGAGCCAAGGGTCCGCCGGCAGGCGCTGGGCAGGGGGTAGCG
GCCGCGGTGCAGCTGCTGGTCACCCTGAGCTTCTCGGAGCGTCGTCGAGGCGCAGGTC
ACTGGAGTCTGGATGAATTGCTTGTGATATTGACAGCATCGATAACTTCAATACCTA
CAAAATCTTCCCAAAATAAAAAATTGCAAGAGAGAGACTATTTTCGTTATTACAAGGT
TAATCTGAAGCGACCTTGTCTTTCTGGCAGAAGATGGCCACTGTTCAATAAAAAGACTG
TCATGTGGAGCCCTGTCCAGAGAGTAAAATTCGGTTGGAATAAAAAGCTGGCATTCTAA
TAAGTACTTGAAAATGGCAACAATACCAAAGAATTAGAAGATGTGAGCAAGCTAATAA
ACTGGGAGCAATTAACAGCACATTAAGTAATCAAAGCAAAGAAGCTTTCATTGACTGGGC
AAGATATGATGATTCACCGGATCACTTTTTGTGAACCTGATATGGAGAGATCTNACGCT
GCTCAGTATGTAGACCTATTGCTGACCCAGACGTTACTGCTATANAGGGACTCTGCT
GGGAGAGTGTGGACAGCATCTATAAGAGAATGNTAAGATGAAGGGGGGGGGGGAAAAA
AAGAATTTTTAAGGTTGGAAGAACCCTCTTTTTTTT
    
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3' Read Nucleotide Sequence:	>OriGene 3' genomic read for NM_019891 unedited NCNGCCTCTTGCAAAAACAGTACTTTAAT TCACATTTTCTAGATTCTGGGGGTACAACAGTAAATTATTTGGAATTCTGTTCAAAATC AAAGCTGCCCTGTAGATATTCCTTAAATACAGTACACATAGATTTGTGGGGTGT TTTACCAAATAATTTCCACGATACCATGCACCTAATCTTGATTTTGGTGAGTAGCTATG GTTCTGCAGGTACCTCAGTTTGCAAACACTGAGAGGTTTACTGGGAACTGTTCCCAAA TTTTCAGCTGAAGGCAATGCTGATGAAAAATCCAAATAGCTGTCTTTCTTATATACAGTG GCACATAGGCAAAGTTGAAAAACATGGCAGAGTTTCATATACCTAGATTACAAATATCGA ATAATTACAATGTTAAAAATGTCAAAATAAAACGTTTTGACTTATCAAATTTCAAAGT GTGGAGTCTATTCTGGCTGATCCTCCTCATAATCCAAGAATCAAACAGGAGAAACCTT CCAAGTTTACCAATTTTAAATATAGTTTGTCCAATTACATAGATGCCACTTTAGTAA AAATAACCTACGCCCTGGAAGAAGGGAAATTTCCCTTTTCTCCATTTTATAACTTC ACCCGTGGGTACCATCATTTCTGTCCGTTAAATTAACCAAGGGCTGGGTTTTAAATAG GGAAGAGAAAAAGACCAAAATGCCCAACCCCGCCAAGCCTTTTTAAAGGCAAAACA GTCCTCAGTTAAAAACACCCCTCCAACAAAAGAGTTGAATTGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_019891
Insert Size:	4700 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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:	<u>NM_019891.2</u> , <u>NP_063944.2</u>
RefSeq Size:	2977 bp
RefSeq ORF:	1404 bp
Locus ID:	56605
UniProt ID:	<u>Q86YB8</u>
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]