

## Product datasheet for **MG207470**

### **Ero1lb (BC058721) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ero1lb (BC058721) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ero1lb
Synonyms:	MGC77955, ero1-beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207470 representing BC058721  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTCCGGGGTTCGCGGGCCGTTACTGGGCAGGGGGCGCGCCGGTGCAACTGCTTGTACACC  
 TGAGCTTCTCAAGTCTGGTCAAGACTCAGGTGACTGGAGTTCTGGATGATTGCTTATGTGACATTGA  
 CAGCATTGATAAATCAACACCTACAAAATCTTCCAAAATAAAGAAGTTACAAGAACGAGACTATTTT  
 CGTTATTACAAGGTTAATCTGAAACGACCATGTCTTTCTGGGCAGAAGATGGCCACTGCTCAATAAAAG  
 ACTGTCATGTGGAGCCCTGTCCAGAAAGTAAAATCCAGTTGGAATTAAGCCGGGCGTTCAAATAAGTA  
 CTCGCAAGCAGCAAACAGCACCAAGAAGTGGATGACTGTGAGCAGGCTAACAACTGGGCGCCATCAAC  
 AGCAGCGTAAGTAACGAAAGCAAAGAAGCGTTCATTGACTGGGCGAGATATGATGATTCGAGGACCACT  
 TTTGTGAAGTTGATGATGAGCGTCTCCTGCTGCACAGTATGTGGACCTGCTGCTGAACCGGAACGGTA  
 CACTGGCTACAAGGGCTCCTCAGCATGGAGGGTGTGGAACAGCATCTATGAAGAAAAGTCTTCAAGCCT  
 CGATCTGTTTATCGTCTTTAAATCCTTTGGCGCCAGCAGAGGGGAAGATGATGGAGAATCATTCTATA  
 CGTGGCTAGAAGGTTTGTGCTTGTGAGAAAAGAGTCTTCTATAAGCTTATATCAGGACTCCATGCCAGCAT  
 CAATTTACATCTGTGTGCAAACTACCTTCTGGAAGAACTGGGGGAAACCTAGTTGGGGACCAAACATC  
 AAGGAGTTTAGACGCCGCTTTGACCCTGTGAAACAAAGGGGAAAGTCCAAGGAGGCTAAAGAACCTGT  
 ACTTTTATACTTGATAGAGCTCCGTGCTTTGTCAAAGTGGCCCTTACTTTGAGCGCTCGATTGTTGA  
 TCTCTATACTGGCAATGTGGAAGATGATGCCGACCAAGACCTTCTGCTCAGCATCTTTCAGGATACA  
 AAGTCTTTCTATGCATTCGATGAGAAATCCATGTTTGCAGGTGACAAAAAGGGGCAAGTCATTAA  
 AGGAAGAATCCGGTTACATTTCAAGAACATCTCCCGATCATGGACTGTGTTGGTGCGATAAATGCAG  
 ACTGTGGGGGAACTGCAGACTCAGGGTTTAGGAACTGCCTTGAAGATCCTCTTCTCTGAAAAGGAAATC  
 CAAAACCTTCCGAGAACAGCCATCCAAGGCTTCCAGCTCACTCGGCAGGAAATCGTTGCTCTTTTAA  
 ATGCTTTTGAAGACTTTCTACAAGCATAAGAGAATTACAGAAGTTAAAGCGTTGTTGCAGCACAGGAG  
 G

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207470 representing BC058721  
 Red=Cloning site Green=Tags(s)

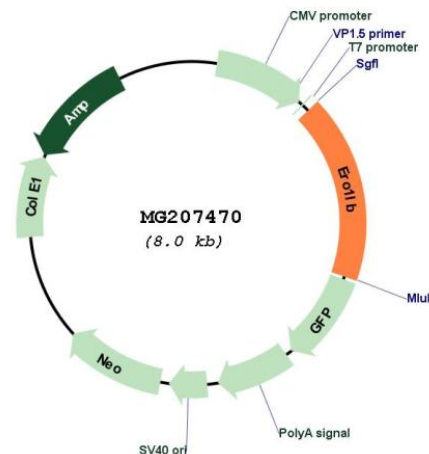
MSPGFRAVAVTGGAAAAVQLLVLSFLSSLVKTQVTGVLDDCLCDIDSIDKFNTYKIFPKIKKLQERDYF  
 RYYKVNLRPCPFWAEDGHCSIKDCHVEPCPEKIPVGIKAGRSNKYSQAANSTKELDDCEQANKLGAIN  
 STL SNESKEAFIDWARYDSDQHFCELDERSPAAQYVDLLNPERYTYGKSSAWRVVNSIYEENCFKP  
 RSVYRPLNPLAPSRGEDDGEFYTWLEGLCLEKRVFYKLISGLHASINLHLCANYLLEETWGKPSWGPNI  
 KEFRRRFDPVETKGEPRRLKNLYFLYLIELRALSKVAPYFERSIVDLYTGNVEDDADTKLLLSIFQDT  
 KSFPMHFDEKSMFAGDKKAKSLKEEFRLHFKNISRIMDCVGCDCRLWGKLQTQGLGTALKILFSEKEI  
 QNLPENSPSKGFQLTRQEIVALLNAFGRLSTSIRELQNFKALLQHRR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** BC058721

**ORF Size:** 1403 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:** [BC058721](#), [AAH58721](#)

**RefSeq Size:** 4255 bp

**RefSeq ORF:** 1403 bp

**Locus ID:** 67475

**Cytogenetics:** 13 A1

**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, PDIA3, PDIA4, PDIA6 and NXNDC12. Following P4HB reoxidation, passes its electrons to molecular oxygen via FAD, leading to the production of reactive oxygen species (ROS) in the cell (By similarity). Involved in oxidative proinsulin folding in pancreatic cells, hence required for glucose homeostasis in vivo.[UniProtKB/Swiss-Prot Function]