

## Product datasheet for MR201982

### Gfer (NM\_023040) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Gfer (NM\_023040) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Gfer  
**Synonyms:** Alr; ERV1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201982 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGCGCCAGCGAGCCGGGGCTTCCCTCGCGCAGTCGTTCTCCTTCTGCCGGCGCGCGC  
 GCTCCGAGATGACCGACGACCTGGTGACTGACGCGGGGCCGCGCGCAAGGCATAGAGACGACACCAC  
 CCCTTCCGCGCCCGCGCCGAAGTTTGGAGCACGGGAAGCGACCGTCCCGGGCCTGCGTGGACTTC  
 AAGTCGTGGATGCGGACCCAGCAGAAGCGGGACATCAAGTTTAGGGAGGACTGTCCGAGGATCGGAAG  
 AATTGGTTCGCCACACCTGGGCTTTCCTCCATACGCTGGCGCCTATTACCCGGACAGGCCACGCCAGA  
 ACAACAACAGGATATGGCCAGTTCATACATATATTTCCAAGTTTACCCTGCGAGGAATGTGCGGAA  
 GACATAAGGAAGAGGATAGGCAGGAACAGCCAGACACAAGCACTCGAGTATCCTTCAGCCAGTGGCTGT  
 GCCGCTGCACAATGAGGTGAATCGGAAGCTGGCAAGCCTGATTTTGACTGCTCGAGAGTAGATGAGCG  
 TTGGCGTGACGGCTGGAAGGACGGCTCCTGTGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201982 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAPSEPAGFPRGSRFSFLPGGARSEMDDLVTDARGRGARHRDDTTPSAAPAPQGLEHGKRPCRACVDF  
 KSWMRTQQKRDIKFREDCPQDREELGRHTWAFHLTLAAYYPDRPTPEQQDMAQFIHIFSKFYPCEECAE  
 DIRKRIGRNQPDSTRVSFSQWLCRLHNEVNRKLGKPDFDCSRVDERWRDGGWKGDS

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_023040

**ORF Size:** 597 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\\_023040.2](#), [NM\\_023040.3](#), [NP\\_075527.2](#)

**RefSeq Size:** 1775 bp

**RefSeq ORF:** 597 bp

**Locus ID:** 11692

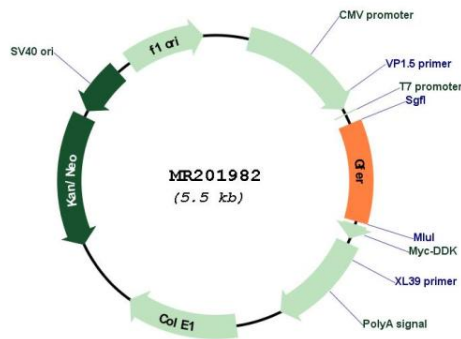
**UniProt ID:** [P56213](#)

**Cytogenetics:** 17 12.48 cM

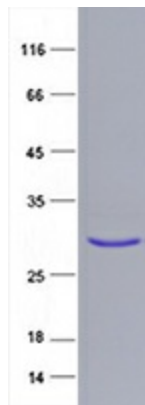
**MW:** 22.9 kDa

**Gene Summary:** FAD-dependent sulfhydryl oxidase that regenerates the redox-active disulfide bonds in CHCHD4/MIA40, a chaperone essential for disulfide bond formation and protein folding in the mitochondrial intermembrane space. The reduced form of CHCHD4/MIA40 forms a transient intermolecular disulfide bridge with GFER/ERV1, resulting in regeneration of the essential disulfide bonds in CHCHD4/MIA40, while GFER/ERV1 becomes re-oxidized by donating electrons to cytochrome c or molecular oxygen (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR201982



Coomassie blue staining of purified Gfer protein (Cat# [TP501982]). The protein was produced from HEK293T cells transfected with Gfer cDNA clone (Cat# MR201982) using MegaTran 2.0 (Cat# [TT210002]).