

Product datasheet for **MG220922**

Fer (NM_008000) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fer (NM_008000) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fer
Synonyms:	AV082135; C330004K01Rik; Fert; Fert2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG220922 representing NM_008000
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATAAGAGTATGGAGTGTCCCCTGTGAGGGTGTGCTGGAGCCTGAGTCTGACCCCGAGTTCTCTA
 AAAAATGTTCTATACCATTGAGCCCTGGACCTTCTCATCAGAGATCCTGAGATACAAGGAAAGAAAGGA
 GAGGCTATCCAAATTTGAGTCTATTCGTCATTCAATTGCTGGGATAAATAAGTCTCCAAAGTCGGTACTC
 GGATCTTCAACAGTGTGTGATGTGATCTCTGTGGGTGAGAGGCCCTGGCGGAGCATGACTGGTACCATG
 GTGCCATCCCAGGATAGAGGCACAGGAAGTCTGAAGCAGCAAGGAGACTTCTGGTGGGAGAGCCA
 TGGGAAACCTGGTGAATATGTCCTTTCTGTATATTCTGACGGACAAGGAGGCACCTTATCATAAATTT
 GTCGATAATCTGTATCGATTGAGGGCACCGGTTTTCAAACATTCGCCAGCTTATAGATCACCCTTCA
 ATACAAAGCAAGTCATCACAAGAAGTCTGGGGTGGTTCTGCTCAACCCATCCCAAAGGATAAGAAATG
 GTTTCTCAATCATGAAGATGTTTCATTGGGAGAATTACTGGGCAAGGGGAATTTTGGTGAAGTGTATAAG
 GGCACACTAAAGGATAAAACTCCTGTTGCCATTAACCTGCAAGGAAGACCTTCTCAGGAATAAAAA
 TAAAGTTTCTACAGGAAGCCAAAATTTCTGAAGCAATATGATCATCCCAATATTGTCAAACCTGATAGCGCT
 GTGCACACAAAGACAGCCTGTCTACATCATTATGGAAGTGGTCCCAGGGGGTGAATTTCTGACCTTCTCTG
 AGGAAGAGGAAGGACGAGCTGAAGCTGAAGCAGTTGGTGAAGATTTTCTTGGACGTTGCTGCTGGCATGT
 TGTATCTCGAGAGCAAGAAGTGCATTACAGGGACCTGGCTGCACGGAAGTGCCTGGTGGGTGAAAAATA
 TACTCTGAAAATCAGTGACTTTGGAATGTCTCGGCAAGAAGACCGTGGAGTGTATTCATCTTCTGGCTTA
 AAGCAGATTCCTATTAATGGACAGCACCGAAGCTCTTAATATGGGAGATACAGTTCTGAAAGTGACG
 TGTGGAGCTTCGGCATCCTCCTCTGGGAGACCTTCAGCCTAGGAGTCTGCCCGTACCCTGGAATGACAAA
 CCAGCAAGCGCGAGAGCAAGTGGAGAGAGGATACCGGATGTCAGCCCCACAGAAGTCTCCAGAGGAGGTT
 TTTACAATCATGATGAAGTGTGGGATTACAAGCCTGAAAACCGCCCTAAGTTCAACGACCTTCACAAAG
 AGCTCACTGTCATCAAGAAGATGATCACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG220922 representing NM_008000
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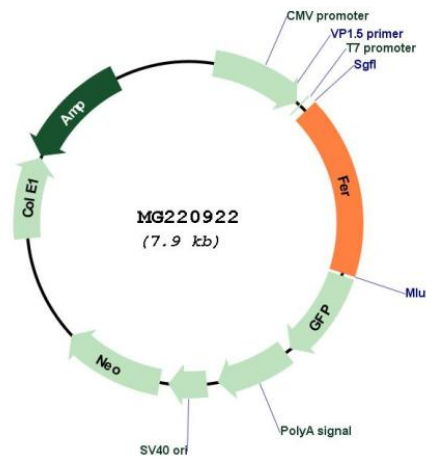
MDKSMECPHCEGVLEPESDPQFSKCSIPLSPGPSSSEILRYKERKERLSKFESIRHSIAGIIKSPKSVL
 GSSTVCDVISVGERPLAEHDWYHGAIPRIEAQELLKQGDFLVRESHGKPGYVLSVYSDGQRRHFIIQF
 VDNLRYFEGTGFSNIPQLIDHFNKQVITKKSQVLLNPIPDKKWLNHEDVSLGELLGKGNFGEVYK
 GTLKDKTPVAIKTCKEDLPQELKIKFLQEAKILKQYDHPNIVKLIQVCTQRQPVYIIMELVPGGDFLTF
 RKRKDELKQLVRFSLDVAAGMLYLESKNCIHRDLAARNCLVGENNTLKI SDFGMSRQEDGGVYSSSGL
 KQIPIKWTAPEALNYGRYSSESVDVWFGILLWETFSLGVCPYPMTNQQAREQVERGYRMSAPQNCPEEV
 FTIMMKWDYKPNRPKFNLDLHKELTVIKKMIT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_008000

ORF Size: 1359 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:	<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_008000.2</u> , <u>NP_032026.2</u>
RefSeq Size:	2383 bp
RefSeq ORF:	1362 bp
Locus ID:	14158
UniProt ID:	<u>P70451</u>
Cytogenetics:	17 E1.1
Gene Summary:	Tyrosine-protein kinase that acts downstream of cell surface receptors for growth factors and plays a role in the regulation of the actin cytoskeleton, microtubule assembly, lamellipodia formation, cell adhesion, cell migration and chemotaxis. Acts downstream of EGFR, KIT, PDGFRA and PDGFRB. Acts downstream of EGFR to promote activation of NF-kappa-B and cell proliferation. May play a role in the regulation of the mitotic cell cycle. Plays a role in the insulin receptor signaling pathway and in activation of phosphatidylinositol 3-kinase. Acts downstream of the activated FCER1 receptor and plays a role in FCER1 (high affinity immunoglobulin epsilon receptor)-mediated signaling in mast cells. Plays a role in the regulation of mast cell degranulation. Plays a role in leukocyte recruitment and diapedesis in response to bacterial lipopolysaccharide (LPS). Phosphorylates CTTN, CTNND1, PTK2/FAK1, GAB1, PECAM1 and PTPN11. May phosphorylate JUP and PTPN1. Can phosphorylate STAT3 according to PubMed:10878010 and PubMed:19159681, but clearly plays a redundant role in STAT3 phosphorylation. According to PubMed:11134346, cells where wild type FER has been replaced by a kinase-dead mutant show no reduction in STAT3 phosphorylation. Phosphorylates TMF1. Isoform 3 lacks kinase activity.[UniProtKB/Swiss-Prot Function]