

## Product datasheet for **MC220721**

### Fert2 (BC058100) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Fert2 (BC058100) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Fert2
Synonyms:	AV082135; C330004K01Rik; Fert; Fert2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >BC058100  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGATTTGGGAGTGACCTGAAGAAGCTGACAGCAAGCTGTGTTAAAGTTGCAAGACTGGGAACACGGT  
 TGCTGGAGACAGTGAAGAAATTTATGGCTCTGAGAATAAAGAGTGATAAAGAATATGCATATACTCTACA  
 GAATCTTTGTAATCAAGTTGATAAAGAAAGCACTGTGCAAGTGAATTATGTCAGCAACGTGTCCAAGGTC  
 ACAAAGACAGAATTGGAGAAATTTAAATCCAGCTATCGACAATTAATAAAGAAATGAATTTGCCAAAG  
 AGAAATATAAAGAAGCCTTAGCGAAAGGGAAGGAAACAGAAAAGGCCAAGGAGCGCTATGACAAAGCTAC  
 AATGAAGCTTCATATGCTGCATAATCAGTATGTGTTGGCACTGAAGGGGGCACAGCTCCATCAGAGCCAG  
 TACTATGATACCACACTTCTCTGCTGCTGGACTCCGTGCAAAAGATGCAAGAAGAAATGATAAAGCAC  
 TAAAAGGTATATTTGATGACTATAGCCAGATAACCAGCCTTGTTACAGAGGAAATAGTGAATGTCCATAA  
 AGAGATTCAAATGTCTGTTGAACAGATAGACCCTAGCACCGAATAATAAATTTTATAGATGTTCCACAGA  
 ACAACAGCTGCTAAAGAACAAGAAATCGAATTTGATACTTCCCTATTAGAAGAAAATGAAAATCTTCAGG  
 CAAATGAGATCATGTGGAATAATTTAACAGCAGACAGTTTGAAGTCAATGTTGAAGACTTTAGCGGAAGA  
 GCTCACACAGACCAGCAGATGCTTTTACACAAGGAGGCGGCCGTCTGGAGCTAGAGAAGAGGATTGAA  
 GAATCTTTTGGAGCTGTGAAAAGAAGTCTGACATTGTGCTTCTTCTGGGCCAAAAACAGGCACTTGAAG  
 AGTTGAAACAGTCACTCCAGCAGTTGCGATGCACTGAGGCAAAGTGTGCAGCACAGAAAGCTTTGCTGGA  
 GCAAAAAGTACAGGAAAATGATGGGAAAGAACCTCCTGTGGTGAATTACGAAGAAGACGCGCGGTCA  
 GTCACATCCATGGAAAGAAAGGAGAGGCTATCCAAATTTGAGTCTATTCGTCATTCAATTGCTGGGATAA  
 TTAAGTCTCCAAAGTCGGTACTCGGATCTTCAACACAGGTGTGTGATGTGATCTCTGTGGTGAGAGGCC  
 CCTGGCGGAGCATGACTGGTACCATGGTGCCATCCCCAGGATAGAGGCACAGGAAGTCTGTAAGCAGCAA  
 GGAGACTTCTGGTGCGGGAGAGCCATGGGAAACCTGGTGAATATGTCCTTTCTGTATATTTGACGGAC  
 AAAGGAGGCACTTTATCATACAATTTGTCGATAATCTGTATCGATTGAGGGCACCGGGTTTTCAACAT  
 TCCCCAGCTTATAGATCACCCTTCAATACAAAGCAAGTCAACCAAGAAGTCTGGGGTGGTTCTGCTC  
 AACCCCATCCCAAAGGATAAGAAATGGTTCTCAATCATGAAGATGTTTCATTGGGAGAATTACTGGGCA  
 AGGGGAATTTTGGTGAAGTGTATAAGGGCACACTAAAGGATAAACTCCTGTTGCCATTAACCGTGCAA  
 GGAAGACCTTCTCAGGAATTAATAAAGTTTCTACAGGAAGCCAAAATCTGAAGCAATATGATCAT  
 CCCAATATTGTCAAAGTATAGGCGTGTGCACACAAAGACAGCCTGTCTACATCATTATGGAAGTGTCC  
 CAGGGGGTGATTTTCTGACCTTCTGAGGAAGAGGAGGACGAGCTGAAGCTGAAGCAGTTGGTGAGATT  
 TTCTTGGACGTTGCTGCTGGCATGTTGTATCTCGAGAGCAAGAAGTGCATTACAGGGACCTGGCTGCA  
 CGGAAGTGCCTGGTGGGTGAAAATAACTCTGAAAATCAGTGAATTTGGAATGTCTCGGCAAGAAGACG  
 GTGGAGTGTATTCATCTTCTGGCTTAAAGCAGATTCCTATTAATGGACAGCACCGGAAGCTCTTAATTA  
 TGGGAGATACAGTTCTGAAAGTGACGTGTGGAGCTTCGGCATCCTCTCTGGGAGACCTCAGCCTAGGA  
 GTCTGCCCGTACCCTGGAATGACAAACCAGCAAGCGGAGAGCAAGTGGAGAGAGGATACCGGATGTCAG  
 CCCACAGAAGTCCAGAGGAGTTTTTACAATCATGATGAAGTGTGGGATTACAAGCTGAAAACCG  
 CCCTAAGTTCAACGACCTTCACAAGAGCTCACTGTATCAAGAAGATGATCACATAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** BC058100  
**Insert Size:** 2298 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC058100</a> , <a href="#">AAH58100</a>
<b>RefSeq Size:</b>	2948 bp
<b>RefSeq ORF:</b>	2297 bp
<b>Locus ID:</b>	14158
<b>Cytogenetics:</b>	17 E1.1
<b>Gene Summary:</b>	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]