

Product datasheet for **MG210538**

Fert2 (BC058100) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fert2 (BC058100) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fert2
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:

>MG210538 representing BC058100
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGATTTGGGAGTGACCTGAAGAAGCTGACAGGAAGCTGTGTTAAAGTTGCAAGACTGGGAACACGGT
 TGCTGGAGACAGTGAAGAAATTTATGGCTCTGAGAATAAAGAGTGATAAAGAATATGCATATACTCTACA
 GAATCTTTGTAATCAAGTTGATAAAGAAAGCACTGTGCAAGTGAATTATGTCAGCAACGTGTCCAAGGTC
 ACAAAGACAGAATTGGAGAAATTTAAATCCAGCTATCGACAATTAATAAAGAAATGAATTTGCCAAAG
 AGAAATATAAAGAAGCCTTAGCGAAAGGAAGGAAACAGAAAAGGCCAAGGAGCGCTATGACAAAGCTAC
 AATGAAGCTTCATATGCTGCATAATCAGTATGTGTTGGCACTGAAGGGGGCACAGCTCCATCAGAGCCAG
 TACTATGATACCACACTTCTCTGCTGCTGGACTCCGTGCAAAAGATGCAAGAAGAAATGATAAAGCAC
 TAAAAGGTATATTTGATGACTATAGCCAGATAACCAGCCTTGTTACAGAGGAAATAGTGAATGTCCATAA
 AGAGATCAAATGTCTGTTGAACAGATAGACCCTAGCACCGAATAATAAATTTTCATAGATGTTCCACAGA
 ACAACAGCTGCTAAAGAACAAGAAATCGAATTTGATACTTCCCTATTAGAAGAAAATGAAAATCTTCAGG
 CAAATGAGATCATGTGGAATAATTTAACAGCAGACAGTTTGAAGTCAATGTTGAAGACTTTAGCGGAAGA
 GCTCACACAGACCCAGCAGATGCTTTTACACAAGGAGGCGGCCGTCTGGAGCTAGAGAAGAGGATTGAA
 GAATCTTTTGGAGCTGTGAAAAGAAGTCTGACATTGTGCTTCTTCTGGGCCAAAAACAGGCACTTGAAG
 AGTTGAAACAGTCAGTCCAGCAGTTGCGATGCACTGAGGCAAAGTGTGCAGCACAGAAAGCTTTGCTGGA
 GCAAAAAGTACAGGAAAATGATGGGAAAGAACCTCCTGTGGTGAATTACGAAGAAGACGCGCGGTCA
 GTCACATCCATGGAAAGAAAGGAGAGGCTATCCAAATTTGAGTCTATTCGTCATTCAATGCTGGGATAA
 TTAAGTCTCCAAAGTCCGTACTCGGATCTTCAACACAGGTGTGTGATGTGATCTCTGTGGGTGAGAGGCC
 CCTGGCGGAGCATGACTGGTACCATGGTGCCATCCCCAGGATAGAGGCACAGGAAGTCTGAAGCAGCAA
 GGAGACTTCTGGTGCAGGAGAGCCATGGGAAACCTGGTGAATATGTCCTTTCTGTATATTTGACGGAC
 AAAGGAGGCATTTATCATACAATTTGTCGATAATCTGTATCGATTGAGGGCACCGGGTTTTCAACAT
 TCCCCAGCTTATAGATCACCCTTCAATACAAAGCAAGTATCACCAGAAGTCTGGGGTGGTCTGCTC
 AACCCCATCCCAAAGGATAAGAAATGGGTTCTCAATCATGAAGATGTTTCATTGGGAGAATTACTGGGCA
 AGGGGAATTTTGGTGAAGTGTATAAGGGCACACTAAAGGATAAACTCCTGTTGCCATTAACACGTGCAA
 GGAAGACCTTCTCAGGAATTAATAAAGTTTCTACAGGAAGCCAAAATCTGAAGCAATATGATCAT
 CCCAATATTGTCAAACTGATAGGCGTGTGCACACAAGACAGCCTGTCTACATCATTATGGAAGTGGTCC
 CAGGGGGTGATTTTCTGACCTTCTGAGGAAGAGGAGGACGAGCTGAAGCTGAAGCAGTTGGTGAGATT
 TTCTTGGACGTTGCTGCTGGCATGTTGTATCTCGAGAGCAAGAAGTGCATTACAGGGACCTGGCTGCA
 CGGAAGTGCCTGGTGGGTGAAAATAACTCTGAAAATCAGTGAAGTGGAAATGTCTCGGCAAGAAGACG
 GTGGAGTGTATTCATCTTCTGGCTTAAAGCAGATTCCTATTAATGGACAGCACCGGAAGCTCTTAATTA
 TGGGAGATACAGTTCTGAAAGTGACGTGTGGAGCTTCGGCATCCTCTCTGGGAGACCTCAGCCTAGGA
 GTCTGCCCGTACCCTGGAATGACAAACCAGCAAGCGGAGAGCAAGTGGAGAGAGGATACCGGATGTCAG
 CCCACAGAAGTCCAGAGGAGGTTTTACAATCATGATGAAGTGTGGGATTACAAGCCTGAAAACCG
 CCCTAAGTTCAACGACCTTCACAAGAGCTCACTGTCATCAAGAAGATGATCACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210538 representing BC058100
 Red=Cloning site Green=Tags(s)

MGFGSDLKNSQEAVLKLQDWELRLLLETVKKFMALRIKSDKEYAYTLQNLQVQDKESTVQVNYVSNVSKV
 TKTELEKLSYRQLIKEMNSAKEKYKEALAKGKETEKAKERYDKATMKLHMLHNQYVLLALKAQLHQSQ
 YYDTTLLPLLLDSVQKMQEEMIKALKGIFDDYSQITSLVTEEIVNVHKEIQMSVEQIDPSTEYNNFIDVHR
 TTAAKEQEIEFDTSLLLEENLQANEIMWNNLTADSLQVMLKTLAEELTQTQQMLLHKEAAVLELEKRIE
 ESFETCEKKSIVLLLGQKQALEELKQSVQQLRCTEAKCAAQKALLEQKVQENDGKEPPPVVNYEEDARS
 VTSMERKERLSKFESIRHSIAGIISKSPKSVLGSSTQVCDVISVGERPLAEHDWYHGAIPRIEAQELLKQQ
 GDFLVRESHGKPGGEYVLSVYSDGQRRHFIIQFVDNLYRFEGTGFSNIPQLIDHHFNTKQVITKKSQVLL
 NPPIPKDKKWLNHEDVSLGELLGKGNFGEVYKGTLDKTPVAIKTCKEDLPQELKIKFLQEAKILKQYDH
 PNIVKLGIVCTQRQPVYIIMELVPGGDFLTLRKRKDELKQLVRFSLDVAAGMLYLESKNCIHRDLAA
 RNCLVGENNTLKI SDFGMSRQEDGGVYSSGLKQIPIKWTAPEALNYGRYSSESDVWSFGILLWETFSLG
 VCPYPGMTNQAREQVERGYRMSAPQNCPEEVFTIMMKCWDYKPENRPFNDLHKELTVIKKMIT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC058100

ORF Size: 2297 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: [BC058100](#), [AAH58100](#)

RefSeq Size: 2948 bp

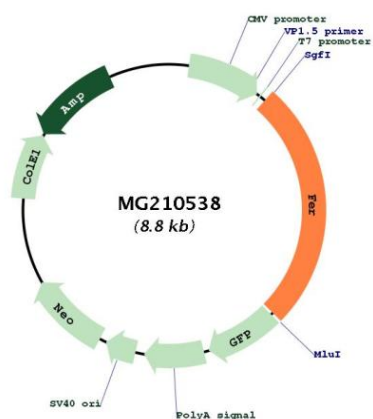
RefSeq ORF: 2297 bp

Locus ID: 14158

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]

Product images:



Circular map for MG210538