

Product datasheet for **MR209803**

Egfr (NM_007912) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Egfr (NM_007912) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Egfr
Synonyms:	9030024J15Rik; AI552599; Erbb; Errb1; Errp; wa-2; wa2; Wa5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR209803 representing NM_007912
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGACCCTCAGGGACCGGAGAACCACACTGCTGGTGTGCTGACCGCCTCTGCGCCGAGGTGGG
CGTTGGAGGAAAAGAAAGTCTGCCAAGGCACAAGTAACAGGCTCACCCAAGTGGCACTTTTGAAGACCA
CTTTCTGAGCCTGCAGAGGATGTACAACAAGTGAAGTGGTCTTGGGAACTTGAAAATTACCTATGTG
CAAAGGAATTACGACCTTCTCTTAAAGACCATCCAGGAGGTGGCCGGCTATGTCCTCATTGCCCTCA
ACACCGTGGAGAGAATCCCTTTGGAGAAGCTGCAGATCATCAGGGGAAATGCTCTTTATGAAAACACCTA
TGCCTTAGCCATCTGTCCAATATGGGACAAACAGAAGTGGGCTTAGGGAACTGCCATGCGGAACTTA
CAGGAAATCCTGATTGGTGTGCGATTAGCAACAACCCATCCTCTGCAATATGGATACTATCCAGT
GGAGGGACATCGTCCAAAACGTCTTTATGAGCAACATGTCAATGGACTTACAGAGCCATCCGAGCAGTTG
CCCCAAATGTGATCCAAGCTGTCCAATGGAAGTGTCTGGGAGGAGGAGGAGAACTGCCAGAAATTG
ACCAAAATCATCTGTGCCAGCAATGTTCCCATCGCTGTCTGGCAGGTCCCCCAGTGACTGCTGCCACA
ACCAATGTGCTGCGGGGTGTACAGGGCCCCGAGAGAGTACTGTCTGGTCTGCCAAAAGTCCAAGATGA
GGCCACATGCAAAGACACCTGCCACCCTCATGCTGTACAACCCACCACCTATCAGATGGATGTCAAC
CCTGAAGGAAAGTACAGCTTTGGTGCCACCTGTGTGAAGAAGTGGCCCGAAACTACGTGGTGACAGATC
ATGGCTCATGTGTCGAGCCTGTGGCCTGACTACTACGAAGTGAAGAAGATGGCATCCGCAAGTGTA
AAAATGTGATGGGCCCTGTGCGAAAGTTTGAATGGCATAGGCATTGGTGAATTTAAAGACACACTCTCC
ATAAATGCTACAAACATCAAACTTCAAATACTGCACCTGCCATCAGCGGGGACCTTACATCCTGCCAG
TGGCCTTTAAGGGGATTCTTTCACGCGCACTCCTCCTAGACCCACGAGAAGTAAAAATCTAAAAAC
CGTAAAGGAAATAACAGGCTTTTTGCTGATTAGGCTTGGCCTGATAAAGTGGACTGACCTCCATGCTTTC
GAGAACCCTAGAAAATAACGTTGGCAGAACAAAGCAACATGGTCAGTTTTCTTTGGCGGTCTTGGCCTGA
ACATCACATCACTGGGGCTGCGTCCCTCAAGGAGATCAGTGATGGGGATGTGATCATTCTGAAAACCG
AAATTTGTGCTACGCAAACACAATAAACTGGAAAAAACTCTCGGGACACCCAATCAGAAAACAAAATC
ATGAACAACAGAGCTGAGAAAGACTGCAAGGCCGTGAACCAGTCTGCAATCCTTTATGCTCCTCGGAAG
GCTGCTGGGGCCCTGAGCCAGGACTGTGTCTCCTGCCAGAATGTGAGCAGAGGAGGGAGTGCCTGGA
GAAATGCAACATCCTGGAGGGGAAACCAAGGGAGTTTGTGAAAATCTGAATGCATCCAGTGCCATCCA
GAATGTCTGCCCCAGGCCATGAACATCACCTGTACAGGCAGGGGACCAGACAAGTGCATCCAGTGTGCC
ACTACATTGATGGCCCACTGTGTCAAGACCTGCCAGCTGGCATCATGGGAGAGAACAACACTCTGGT
CTGGAAGTATGCAGATGCCAATAATGTCTGCCACCTATGCCACGCCAACTGTACCTATGGATGTGCTGGG
CCAGGTCTTAAGGATGTGAAGTGTGGCCATCTGGGTACGTTCAATGGCAGTGGATCTTAAAGACCTTTT
GGATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR209803 representing NM_007912
Red=Cloning site Green=Tags(s)

MRPSGTARTTLLVLLTALCAAGGALEEKVKCQGTSNRLTQLGTFEDHFLSLQRMYNCEVVLGNLEITYV
 QRNYDL SFLKTIQEVAGYVLIALNTVERIPLNLQIIRGNALYENTYALAILSNYGTNRGLRELPMRNL
 QEILIGAVRFSNNPILCNMDTIQWRDIVQNVFMSNMMDLQSHPSSCPCKDCPNSCWGGGEENCQKL
 TKIICAQQCSHRCRGRSPSDCCHNQCAAGCTGPRESDCLVCQKFQDEATCKDTCPLMLYNPTTYQMDVN
 PEGKYSFGATCVKCKPRNYVVTDHGSCVRACGPDYVEEEDGIRKCKCDGPCRKVCNGIGIGEFKDTLS
 INATNIKHFKYCTAISGDLHILPVAFKGSFTRTPPLDPRELEILKTVKEITGFLLIQAWPDNWTDLHAF
 ENLEIIRGRKQHGQFSLAVVGLNITSLGLRSLKEISDGDV IISGNRNLCYANTINWKKLFGTPNQKTKI
 MNNRAEKDCKAVNHVCNPLCSSEGCWGPEPRDCVSCQNVSRGECVCKNILEGEPREFVENSEIQCHP
 ECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKTCPAGIMGENNTLVWKYADANNVCHLCHANCTYGCAG
 PGLQGCEVWPSGYVQWQWILKTFWI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_007912

ORF Size: 1965 bp

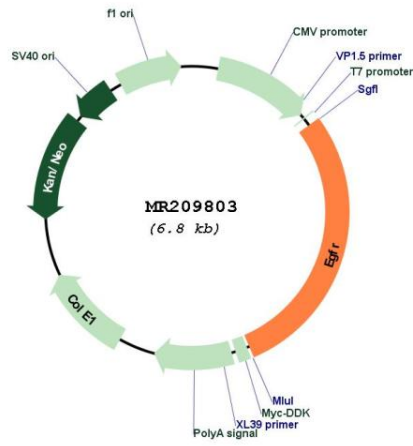
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_007912.4, NP_031938.1</u>
RefSeq Size:	2678 bp
RefSeq ORF:	1968 bp
Locus ID:	13649
Cytogenetics:	11 9.41 cM
MW:	73.4 kDa
Gene Summary:	<p>Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:8404850). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (By similarity). Plays a role in enhancing learning and memory performance (PubMed:20639532).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR209803