

## Product datasheet for MR226160

### Egfr (NM\_207655) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Egfr (NM_207655) 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)  |
| ORF Nucleotide Sequence:  | >MR226160 representing NM_207655<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGACCCTCAGGGACCGGAGAACCACACTGCTGGTGTGCTGACCGCCTCTGCGCCGAGGTGGG  
CGTTGGAGGAAAAGAAAGTCTGCCAAGGCACAAGTAACAGGCTCACCCAAGTGGGCACTTTGAAGACCA  
CTTTCTGAGCCTGCAGAGGATGTACAACAAGTGAAGTGGTCTTGGGAACTGGAAATTACCTATGTG  
CAAAGGAATTACGACCTTCTCTTAAAGACCATCCAGGAGGTGCCGGCTATGTCCTCATTGCCCTCA  
ACACCGTGGAGAGAATCCCTTTGGAGAAGTGCAGATCATCAGGGGAAATGCTCTTTATGAAAACACCTA  
TGCCCTTAGCCATCCTGTCCAATATGGGACAAACAGAAGTGGGCTTAGGGAACTGCCATGCGGAACTTA  
CAGGAAATCCTGATTGGTGTGCGATTGAGCAACAACCCATCCTCTGCAATATGGATACTATCCAGT  
GGAGGGACATCGTCCAAAACGCTTTATGAGCAACATGCAATGGACTTACAGAGCCATCCGAGCAGTTG  
CCCCAAATGTGATCCAAGCTGTCCCAATGGAAGCTGCTGGGGAGGAGGAGGAGAACTGCCAGAAATTG  
ACCAAAATCATCTGTGCCAGCAATGTTCCCATCGCTGCTGCGGAGGTCAGTGTGCTGCCACA  
ACCAATGTGCTGCGGGGTGTACAGGGCCCCGAGAGAGTACTGTCTGGTCTGCCAAAAGTCCAAGATGA  
GGCCACATGCAAAGACACCTGCCACCCTCATGCTGTACAACCCACCACCTATCAGATGGATGCAAC  
CCTGAAGGGAAGTACAGCTTTGGTGCACCTGTGTGAAGAAGTGCCTCCGAAACTACGTGGTGACAGATC  
ATGGCTCATGTGTCAGCCTGTGGCCTGACTACTACGAAGTGAAGAAGATGGCATCCGCAAGTGTA  
AAAATGTGATGGCCCTGTGCGAAAGTTTGAATGGCATAGGCATTGGTGAATTTAAAGACACACTCTCC  
ATAAATGCTACAAACATCAAACACTTCAAATACTGCACTGCCATCAGCGGGACCTTACATCCTGCCAG  
TGGCCTTTAAGGGGATTCTTTCAGCGCACTCCTCCTAGACCCACGAGAAGTAAAGAAATCTAAAAAC  
CGTAAAGGAAATAACAGGCTTTTGTGATTGAGGCTGGCTGATAACTGGACTGACCTCCATGCTTTC  
GAGAACCTAGAAATAATACGTGGCAGAACAAAGCAACATGGTCAGTTTTCTTTGGCGGCTGTTGGCTGA  
ACATCACATCACTGGGCTGCGTCCCTCAAGGAGATCAGTGATGGGGATGTGATCATTTCTGAAAACCG  
AAATTTGTGCTACGCAACACAATAAAGTGAAGAACTCTCGGACACCCAATCAGAAAACCAAAATC



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ATGAACAACAGAGCTGAGAAAGACTGCAAGGCCGTGAACCACGTCTGCAATCCTTTATGCTCCTCGGAAG  
GCTGCTGGGGCCCTGAGCCCAGGGACTGTGTCTCTGCCAGAATGTGAGCAGAGGGCAGGGAGTGCCTGGA  
GAAATGCAACATCCTGGAGGGGGAACCAAGGGAGTTTGTGGAAAATCTGAATGCATCCAGTGCCATCCA  
GAATGTCTGCCCCAGGCCATGAACATCACCTGTACAGGCAGGGGACCAGACAACCTGCATCCAGTGTGCC  
ACTACATTGATGGCCACACTGTGTCAAGACCTGCCAGCTGGC/CATCATGGGAGAGAACAACACTCTGGT  
CTGGAAGTATGCAGATGCCAATAATGTCTGCCACCTATGCCACGCCAAGTACCATCTATTGCCACTGGGATTGG  
CCAGGCTTCAAGGATGTGAAGTGTGGCCATCTGGGCCAAAGATACCATCTATTGCCACTGGGATTGG  
GTGGCCTCCTCTCATAGTGGTGGTGGCCCTTGGGATTGGCCTATTCATGCGAAGACGTACATTGTTG  
AAAGCGTACACTACGCCCGCTGCTTCAAGAGAGAGAGCTCGTGGAACCTCTCACACCCAGCGGAGAGCT  
CCAAACCAAGCCCACTTGAGGATATTAAGGAAACAGAATTCAAAAAGATCAAAGTTCTGGGTTCCGGGAG  
CATTTGGCACAGTGTATAAGGGTCTCTGGATCCCAGAAGGTGAGAAAAGTAAAAATCCCGTGGCCATCAA  
GGAGTTAAGAGAAGCCACATCTCCAAAAGCCAACAAGAATCCTTGACGAAGCCTATGTGATGGCTAGT  
GTGGACAACCCTCATGTATGCCGCCTCTGGGCATCTGTCTGACCTCCACTGTCCAGCTCATTACACAGC  
TCATGCCCTACGGTTGCCTCCTGGACTACGTCCGAGAACAAGGACAACATTGGCTCCCAGTACCTCCT  
CAACTGGTGTGTGAGATTGCAAAGGGCATGAACTACCTGGAAGATCGGGCTTTGGTGCACCGTGACTTG  
GCAGCCAGGAATGTACTGGTGAAGACACCACAGCATGTCAAGATCACAGATTTTGGGCTGGCCAACTGC  
TTGGTGCTGAAGAGAAAAGATATCATGCCGAGGGGGGCAAAGTGCCTATCAAGTGGATGGCTTTGGAATC  
AATTTTACACCGAATTTATACACACCAAAGTGTGTCTGGAGCTATGGTGTCACTGTGTGGGAACTGATG  
ACCTTTGGGTCCAAGCCTTATGATGGAATCCCAGCAAGTGACATCTCATCCATCCTAGAGAAAGGAGAGC  
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TGATAGCCGCCAAAAGTCCGAGAGTTGATTCTTGAATTCTCCAAAATGGCCCGAGACCCACAGCGCTAC  
CTTGTTATCCAGGGGATGAAAGAATGCATTTGCCAAGCCCTACAGACTCCAACCTTTACCGAGCCCTGA  
TGGATGAAGAGGACATGGAGGATGTAGTTGATGCTGATGAGTATCTTATCCACAGCAAGGCTTCTCAA  
CAGCCCGTCCACGTGAGGACTCCCTCTTGAGTTCTCTGAGTGCAACTAGCAACAATTCCACTGTGGCT  
TGCATTAATAGAAATGGGAGCTGCCGTGTCAAAGAAGACGCCTTCTTGCAGCGGTACAGTCCGACCCCA  
CAGGTGCTGTAACAGAGGACAACATAGATGACGCATTCTCCCTGTACCTGAATATGTAACCAATCTGT  
TCCAAGAGGCCAGCAGGCTCTGTGCAGAACCTGTCTATCACAATCAGCCCTGCATCCAGCTCCTGGA  
AGAGACCTGCATTATCAAATCCCCACAGCAATGCAGTGGGCAACCCTGAGTATCTCAACACTGCCAGC  
CTACCTGTCTCAGTAGTGGGTTAACAGCCCTGCACTCTGGATCCAGAAAGGCAGTACCAAATGAGCCT  
AGACAACCCTGACTACCAGCAGGACTTCTCCCAAGGAAACCAAGCCAAATGGCATATTAAGGGCCCC  
ACAGCTGAAAATGCAGAGTACCTACGGGTGGCACCTCCAAGCAGTGAGTTTATTGGAGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR226160 representing NM\_207655  
 Red=Cloning site Green=Tags(s)

MRPSGTARTTLLVLLTALCAAGGALEEKVKCQGTSNRLTQLGTFEDHFLSLQRMYNNCEVVLGNLEITYV  
 QRNYDLSFLKTIQEVAGYVLIALNTVERIPLNLQIIRGNALYENTYALAILSNYGTNRTGLRELPMRNL  
 QEILIGAVRFSNNPILCNMDTIQWRDIVQNVFMSNMMDLQSHPSSCPCKDCPSCPNWSCWGGEENCQKL  
 TKIICAQQCSHRCRGRSPSDCCNHQCAAGCTGPRESDECLVCQKFQDEATCKDTCPPMLLYNPPTYQMDVN  
 PEGKYSFGATCVKKCPRNVVTDHGSCVRACGPDYVEEEDGIRKCKKCDGPCRKVCNGIGIGEFKDTLS  
 INATNIKHFKYCTAISGDLHILPVAFKGSFTRTPPLDPRELEILKTVKEITGFLLIQAWPDNWTDLHAF  
 ENLEIIRGRKQHGQFSLAVVGLNITSLGLRSLKEISDGDVVISGNRNLKYANTINWKKLFGTPNQKTKI  
 MNNRAEKDCKAVNHVCNPLCSSEGCWGEPRDCVSCQNVSRGECVEKCNILEGEPREFVENSECIQCHP  
 ECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKTCPAGIMGENNTLVWKYADANNVCHLCHANCTYGCAG  
 PGLQGCEVWVSPGPKIPSIATGIVGGLLFIVVALGIGLFMRRRHIVRKRTLRRLLQERELVEPLTPSGEA  
 PNQAHLRILKETEFKKIKVLGSGAFGTVYKGLWIPEGEKVKIPVAIKELREATSPKANKEILDEAYVMAS  
 VDNPHVCRLLGICLTSTVQLITQLMPYGCLLDYVREHKDNIQSQYLLNWCVQIAKGMNYLEDRRLLVHRDL  
 AARNVLVKTPQHVKITDFGLAKLLGAEKEYHAEGGKVPJKWMALESILHRIYTHQSDVWSYGVTVWELM  
 TFGSKPYDGPASDISSILEKGERLPQPICTIDVYIMVYKWMIDADSRPKFRELILEFSKMARDPQRY  
 LVIQGDERMHLPSPTDSNFYRALMDEEDMEDVVDADAYLIPQQGFFNSPSTSRTPLLSSLATSNNSTVA  
 CINRNGSCRVKEDAFQRYSSDPTGAVTEDNIDDAFLPVPEYVNVQSVPKRPAGSVQNPVYHNQPLHPAG  
 RDLHYQNPNSNAVGNPEYLNTAQPTCLSSGFNSPALWIQKGSQMSLDNPDYQQDFFPKETKPNIGFKGP  
 TAENAEYLRVAPPSSEFIGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1217\\_d09.zip](https://cdn.origene.com/chromatograms/ja1217_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

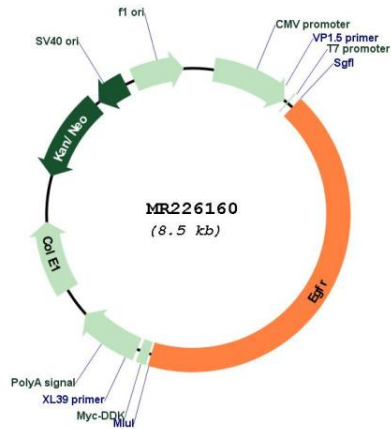


**ACCN:** NM\_207655

**ORF Size:** 3630 bp

|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <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="#">NM_207655.2</a> , <a href="#">NP_997538.1</a>   |
| <b>RefSeq Size:</b>           | 5983 bp   |
| <b>RefSeq ORF:</b>            | 3633 bp   |
| <b>Locus ID:</b>              | 13649   |
| <b>UniProt ID:</b>            | <a href="#">Q01279</a>  |
| <b>Cytogenetics:</b>          | 11 9.41 cM  |
| <b>MW:</b>                    | 135.3 kDa   |
| <b>Gene Summary:</b>          | <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 MR226160