

## Product datasheet for **RC217223**

### EGFR (NM\_201282) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EGFR (NM_201282) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EGFR
Synonyms:	ERBB; ERBB1; ERRP; HER1; mENA; NISBD2; PIG61
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC217223 representing NM\_201282  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCGACCCTCCGGGACGGCCGGGGCAGCGCTCCTGGCGTGCTGGCTGCGCTCTGCCCGCGAGTCGGG  
 CTCTGGAGGAAAAGAAAGTTTGCCAAGGCACGAGTAACAAGCTCACGAGTTGGGCACTTTGAAGATCA  
 TTTTCTCAGCCTCCAGAGGATGTCAATAACTGTGAGGTGGTCTTGGGAATTTGAAAATTACCTATGTG  
 CAGAGGAATTATGATCTTCTCTTAAAGACCATCCAGGAGGTGGCTGTTATGTCCTCATTGCCCTCA  
 ACACAGTGGAGCGAATTCCTTTGGAAAACCTGCAGATCATCAGAGGAAATATGTAACGAAAATTCCTA  
 TGCCTTAGCAGTCTTATCTAACTATGATGCAAATAAACCCGACTGAAGGAGCTGCCCATGAGAAATTTA  
 CAGGAAATCCTGCATGGCGCCGTGCGGTTACGCAACAACCCTGCCCTGTGCAACGTGGAGAGCATCCAGT  
 GCGGGACATAGTCAGCAGTGACTTTCTCAGCAACATGTCGATGGACTTCCAGAACCACCTGGGCAGCTG  
 CCAAAAGTGTGATCCAAGCTGTCCAATGGGAGCTGCTGGGGTGCAGGAGAGGAGAACTGCCAGAACTG  
 ACCAAAATCATCTGTGCCAGCAGTGCTCCGGGCGCTGCCGTGGCAAGTCCCCCAGTGACTGCTGCCACA  
 ACCAGTGTGCTGCAGGCTGCACAGGCCCCCGGGAGAGCGACTGCCCTGGTCTGCCGCAAATTCGAGACGA  
 AGCCACGTGCAAGGACACCTGCCCCCACTCATGCTCTACAACCCACCAGTACCAGATGGATGTGAAC  
 CCCGAGGGCAAATACAGCTTTGGTGCCACCTGCGTGAAGAAGTGTCCCCGTAATTATGTGGTGACAGATC  
 ACGGCTCGTGCGTCCGAGCCTGTGGGGCCGACAGCTATGAGATGGAGGAAGACGGCGTCCGCAAGTGTA  
 GAAGTGCAGAGGGCTTCCCGCAAAGTGTGAACGGAATAGGTATTGGTGAATTTAAGACTCACTCTCC  
 ATAAATGCTACGAATATTAACACTTCAAAAACCTGCACCTCCATCAGTGGCGATCTCCACATCCTGCCG  
 TGGCATTAGGGGTGACTCCTTACACATACTCCTCTGGATCCACAGGAACTGGATATTCTGAAAAC  
 CGTAAAGGAAATCACAGGGTTTTGCTGATTGCTCAGGCTTGGCTGAAAACAGGACGGACCTCCATGCCTTT  
 GAGAACCTAGAAATCATACGCGGCAGGACCAAGCAACATGGTCAGTTTTCTCTTGACGTGTCAGCCTGA  
 ACATAACATCCTTGGGATTACGCTCCCTCAAGGAGATAAGTATGGAGATGTGATAATTTAGGAAAACA  
 AAATTTGTGCTATGCAAATAAATAAAGTGAATAAAGTGTGGGACCTCCGGTCCAGAAAACAAAATT  
 ATAAGCAACAGAGGTGAAAACAGCTGCAAGGCCACAGGCCAGGTCTGCCATGCCTTGTGCTCCCCGAGG  
 GCTGCTGGGGCCCGAGCCAGGACTGCGTCTCTTCCCGAATGTCAGCCGAGGACGGGAATGCGTGGA  
 CAAGTGAACCTTCTGGAGGTGAGCAAGGGAGTTTGTGGAGAACTCTGAGTGCATACAGTGCCACCCA  
 GAGTGCCTGCCTCAGGCCATGAACATCACCTGCACAGGACGGGGACCAGACAAGTATCCAGTGTGCC  
 ACTACATTGACGGCCCCACTGCGTCAAGACCTGCCCGCAGGAGTCATGGGAGAAAACAACACCCTGGT  
 CTGGAAGTACGCAGACGCCGGCCATGTGTGCCACCTGTGCCATCCAAACTGCACCTACGGGTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217223 representing NM\_201282  
 Red=Cloning site Green=Tags(s)

MRPSGTAGAALLALLAALCPASRALEEKKVCQGTSNKL TQLGTFEDHFLSLQRMFNNEVVLGNLEITYV  
 QRNYDLSFLKTIQEVAGYVLIALNTVERIPLNLQIIRGNMYENSALAVLSNYDANKTGLKELPMRNL  
 QEILHGAVRFSNNPALCNVESIQWRDIVSSDFLSNMSMDFQNLHGSCQKCDPSCPNNGSCWGAGEENCQKL  
 TKIICAQQCSGRCRGKSPSDCCHNQCAAGCTGPRESCLVCRKFRDEATCKDTCPLMLYNPTTYQMDVN  
 PEGKYSFGATCVKCPRNYVVDHGSVCRACGADSYEMEEDGVRKCKKCEGPCRKCNGIGIGEFKDSLS  
 INATNIKHFKNCTISGDLHILPVAFRGDSFHTPPLDPQELDILKTVKEITGFLLIQAWPENRDLHAF  
 ENLEIIRGRKQHQFSLAVVSLNITSLGLRSLKEISDGDVIIISGNKLCYANTINWKKLFGTSGQKTKI  
 ISNRGENSCKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGRCVDCNLLLEGEPPREFVENSEIQCHP  
 ECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKTCAPAGVMGENNTLVWKYADAGHVCHLCHPNCTYGS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8070\\_e03.zip](https://cdn.origene.com/chromatograms/mk8070_e03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_201282

**ORF Size:** 1884 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.

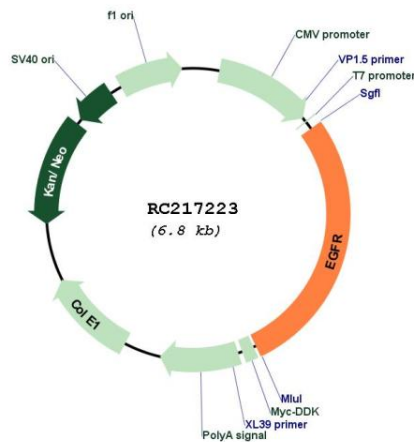
**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_201282.2](#)

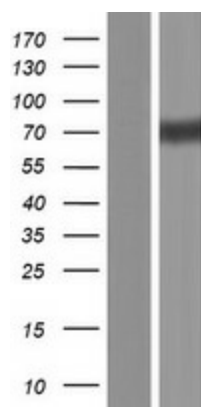
**RefSeq Size:** 2239 bp

<b>RefSeq ORF:</b>	1887 bp
<b>Locus ID:</b>	1956
<b>UniProt ID:</b>	<a href="#">P00533</a>
<b>Cytogenetics:</b>	7p11.2
<b>Protein Families:</b>	Adult stem cells, Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Secreted Protein, Stem cell relevant signaling - JAK/STAT signaling pathway, Transmembrane
<b>Protein Pathways:</b>	Adherens junction, Bladder cancer, Calcium signaling pathway, Colorectal cancer, Cytokine-cytokine receptor interaction, Dorso-ventral axis formation, Endocytosis, Endometrial cancer, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, MAPK signaling pathway, Melanoma, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton
<b>MW:</b>	66.9 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor, thus inducing receptor dimerization and tyrosine autophosphorylation leading to cell proliferation. Mutations in this gene are associated with lung cancer. EGFR is a component of the cytokine storm which contributes to a severe form of Coronavirus Disease 2019 (COVID-19) resulting from infection with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). [provided by RefSeq, Jul 2020]

### Product images:



Circular map for RC217223



Western blot validation of overexpression lysate (Cat# [LY404514]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217223 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).