

# **Product datasheet for RC400305**

# EGFR (NM 005228) Human Mutant ORF Clone

**Product data:** 

**Product Type:** Mutant ORF Clones

**Product Name:** EGFR (NM\_005228) Human Mutant ORF Clone

Mutation Description: L747\_E749del

Affected Codon#: 747

**Affected NT#:** c.2239\_2247

Nucleotide Mutation: EGFR Mutant (L747\_E749del), Myc-DDK-tagged ORF clone of Homo sapiens epidermal growth

factor receptor (EGFR), transcript variant 1 as transfection-ready DNA

**Effect:** deletion

Symbol: EGFR

**Synonyms:** ERBB; ERBB1; ERRP; HER1; mENA; NISBD2; PIG61

E. coli Selection: Kanamycin (25 ug/mL)

Mammalian Cell Neomycin

Selection:

**Vector:** pCMV6-Entry (PS100001)

Tag: Myc-DDK
ACCN: NM 005228

ORF Size: 3621 bp
Restriction Sites: Sgfl-Mlul

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**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

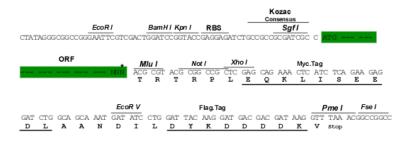
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#### **Cloning Scheme:**





<sup>\*</sup> The last codon before the Stop codon of the ORF

### **OTI Disclaimer:**

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:customer.com">customer.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

**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).



## EGFR (NM\_005228) Human Mutant ORF Clone - RC400305

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

0.22um filter is required.

 RefSeq:
 NP 005219

 RefSeq Size:
 5616 bp

 RefSeq ORF:
 3633 bp

 Locus ID:
 1956

**Cytogenetics:** 7p11.2

**Domains:** Recep\_L\_domain, pkinase, TyrKc, S\_TKc, Furin-like, FU

Protein Families: 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

**Protein Pathways:** 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

MW: 133 kDa

**Gene Summary:** 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]