

Product datasheet for **RG209954**

ErbB 3 (ERBB3) (NM_001982) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ErbB 3 (ERBB3) (NM_001982) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ErbB 3
Synonyms:	c-erbB-3; c-erbB3; ErbB-3; erbB3-S; FERLK; HER3; LCCS2; MDA-BF-1; p45-sErbB3; p85-sErbB3; p180-ErbB3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209954 representing NM_001982 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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AATGCCGACCTCTCCTTCTGCAGTGGATTGAGAAGTGACAGGCTATGCTCCTCGTGCCATGAATGAAT
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

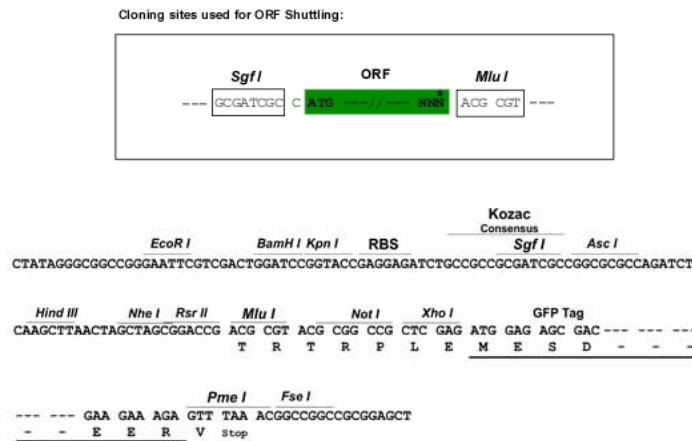
Protein Sequence: >RG209954 representing NM_001982
 Red=Cloning site Green=Tags(s)

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 IVRLGLCPGSSLQLVTQYLPGLSLDHVRQHRGALGPQLLLNWGVQIAKGMYYLEEHGMVHRNLAARNV
 LLKSPSQVQVADFGVADLLPPDDKQLLYSEAKTPIKWMALESIHFVKYTHQSDVWSYGVTVWELMTFGAE
 PYAGRLAEVVDLLEKGERLAQPQICTIDVYMMVMKCMIDENIRPTFKELANEFTRMARDPPRYLVIKR
 ESGPGIAPGPEPHGLTNKKLEEEVELEPELDDLDDLEAEEDNLATTTLSALSLPVGTLNRPGRSQSLLSP
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 EYMNQRDGGGPGDYAAMGACPASEQGYEEMRAFGQPGHQAPHVHYARLKLRSLEATDSAFDNPDYWH
 SRLFPKANAQRT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001982

ORF Size: 4026 bp

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 custsupport@origene.com 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. [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: [NM_001982.4](#)

RefSeq Size: 5511 bp

RefSeq ORF: 4029 bp

Locus ID: 2065

UniProt ID: [P21860](#)

Cytogenetics: 12q13.2

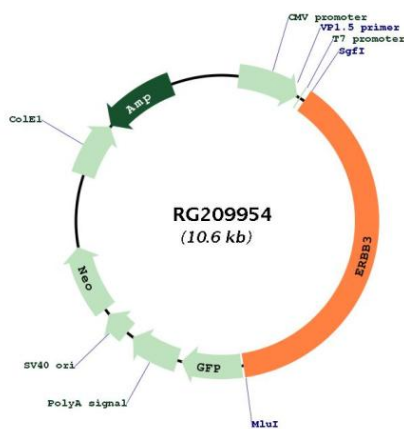
Domains: Recep_L_domain, pkinase, TyrKc, S_TKc, Furin-like, FU

Protein Families: Adult stem cells, Druggable Genome, Protein Kinase, Secreted Protein, Stem cell - Pluripotency, Transmembrane

Protein Pathways: Calcium signaling pathway, Endocytosis, ErbB signaling pathway

Gene Summary:

This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members which do have kinase activity. Heterodimerization leads to the activation of pathways which lead to cell proliferation or differentiation. Amplification of this gene and/or overexpression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. Alternate transcriptional splice variants encoding different isoforms have been characterized. One isoform lacks the intermembrane region and is secreted outside the cell. This form acts to modulate the activity of the membrane-bound form. Additional splice variants have also been reported, but they have not been thoroughly characterized. [provided by RefSeq, Jul 2008]

Product images:

Circular map for RG209954