

## Product datasheet for RC209954

### 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:	Myc-DDK
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-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209954 representing NM_001982 Red=Cloning site Blue=ORF Green=Tags(s)

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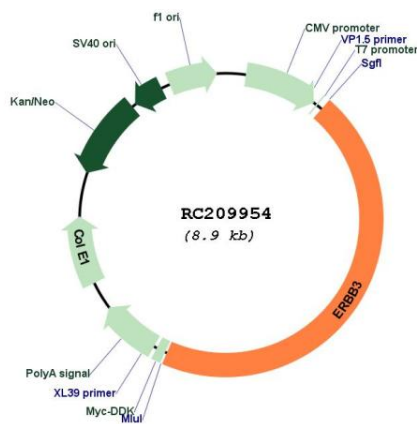
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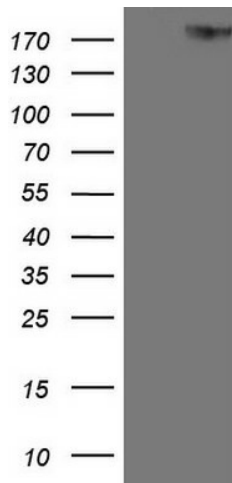
<b>OTI Disclaimer:</b>	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts 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:custsupport@origene.com">custsupport@origene.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. <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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001982.4</a>
<b>RefSeq Size:</b>	5511 bp
<b>RefSeq ORF:</b>	4029 bp
<b>Locus ID:</b>	2065
<b>UniProt ID:</b>	<a href="#">P21860</a>
<b>Cytogenetics:</b>	12q13.2
<b>Domains:</b>	Recep_L_domain, pkinase, TyrKc, S_TKc, Furin-like, FU
<b>Protein Families:</b>	Adult stem cells, Druggable Genome, Protein Kinase, Secreted Protein, Stem cell - Pluripotency, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, Endocytosis, ErbB signaling pathway
<b>MW:</b>	148.1 kDa

**Gene Summary:**

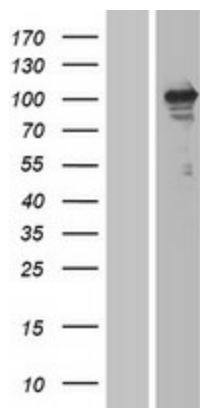
This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. 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:**


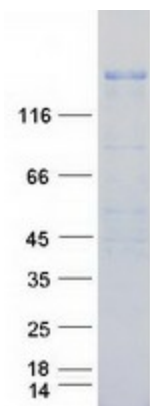
Circular map for RC209954



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ERBB3 (Cat# RC209954, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ERBB3 (Cat# [TA809228])(1:2000). Positive lysates [LY400725] (100ug) and [LC400725] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400725]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209954 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERBB3 protein (Cat# [TP309954]). The protein was produced from HEK293T cells transfected with ERBB3 cDNA clone (Cat# RC209954) using MegaTran 2.0 (Cat# [TT210002]).