

## **Product datasheet for RC224398**

## OriGene Technologies, Inc.

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## ErbB 3 (ERBB3) (NM\_001005915) Human Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** ErbB 3 (ERBB3) (NM\_001005915) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: ErbB 3

Synonyms: c-erbB-3; c-erbB3; ErbB-3; erbB3-5; 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 >RC224398 representing NM\_001005915
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224398 representing NM\_001005915

Red=Cloning site Green=Tags(s)

MRANDALQVLGLLFSLARGSEVGNSQAVCPGTLNGLSVTGDAENQYQTLYKLYERCEVVMGNLEIVLTGH NADLSFLQWIREVTGYVLVAMNEFSTLPLPNLRVVRGTQVYDGKFAIFVMLNYNTNSSHALRQLRLTQLT

GQFPMVPSGLTPQQAQDWYLLDDDPRLLTLSASSKVPVTLAAV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



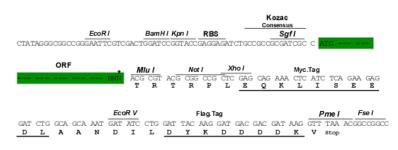
**Chromatograms:** https://cdn.origene.com/chromatograms/mg3975 d09.zip

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 

Cloning sites used for ORF Shuttling: ORF Sgfl ACG CGT



ACCN: NM\_001005915

**ORF Size:** 549 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.

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

0.22um filter is required.

RefSeq: NM 001005915.1, NP 001005915.1

RefSeq Size: 1050 bp



 RefSeq ORF:
 552 bp

 Locus ID:
 2065

 UniProt ID:
 P21860

 Cytogenetics:
 12q13.2

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

Pluripotency, Transmembrane

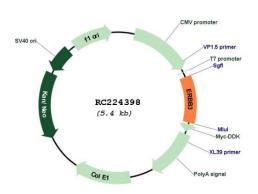
**Protein Pathways:** Calcium signaling pathway, Endocytosis, ErbB signaling pathway

MW: 20.17 kDa

**Gene Summary:** This gene encodes a member of the epidermal growth factor receptor (EGFR) family of

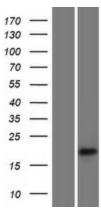
receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members 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]

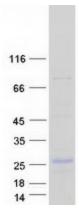
## **Product images:**



Circular map for RC224398







Western blot validation of overexpression lysate (Cat# [LY423671]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224398 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified ERBB3 protein (Cat# [TP324398]). The protein was produced from HEK293T cells transfected with ERBB3 cDNA clone (Cat# RC224398) using MegaTran 2.0 (Cat# [TT210002]).