

Product datasheet for RC220500

ErbB 4 (ERBB4) (NM_001042599) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ErbB 4 (ERBB4) (NM_001042599) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ErbB 4
Synonyms:	ALS19; HER4; p180erbB4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220500 representing NM_001042599 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCCGGCGACAGGACTTTGGGTCTGGGTGAGCCTTCTCGTGGCGGGGGACCGTCCAGCCCAGCG
ATTCTCAGTCAGTGTGTGCAGGAACGGAGAATAAACTGAGCTCTCTCTGACCTGGAACAGCAGTACCG
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AGAAAAGCTGAAAATTGTACTGCTGAAGGAATGGTGTGCAACCATCTGTGTTCCAGTGATGGCTGTTGGG
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Protein Sequence: >RC220500 representing NM_001042599
 Red=Cloning site Green=Tags(s)

MKPATGLWVWSLLVAAGTVQPSDSQSV CAGTENKLSLSDLEQQYRALRKYENCEVVMGNLEITSIEH
 NRDLSFLRSVREVTGYVLVALNQFRYLPLENLRIIRGTKLYEDRYALAIFLNRYRKDGNFGLQELGLKNLT
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 IMASMDHPLVRL LGVCL SPTIQLVTQLMPHGCLLEYVHEHKDNI GSQLLLNWCVQIAKGM MYLEERRLV
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 PQRYLVIQGDDRMKLPSPNDSKFFQNLLEEDLEDMDAE EYLPQAFNIPPIYTSRARIDSNRNQFVY
 RDGGFAAEQGVSVPYRAPSTIPEAPVAQGATAE I FDDSCCNGLRKPVAPHVQEDSSTQRY SADPTVFA
 PERSPRGELDEEGYMPMRDKPKQEYLN PVEENPFVSRKNGDLQALDNPEYHNASNGPPKA EDEYVNEP
 LYLNTFANTLGKAEYLKNNILSMPEKAKAFDNPDYWNHSL PPRSTLQHPDYLQEYSTKYFYKQNGRIRP
 IVAENPEYLSFSLKPGTVLPPPPYRHRNTVV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6684_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001042599

ORF Size: 3876 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_001042599.1](#), [NP_001036064.1](#)

RefSeq Size: 11893 bp

RefSeq ORF: 3879 bp

Locus ID: 2066

UniProt ID: [Q15303](#)

Cytogenetics: 2q34

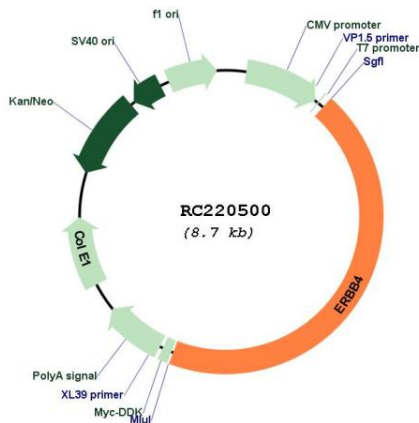
Protein Families: Druggable Genome, Protein Kinase, Transmembrane

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

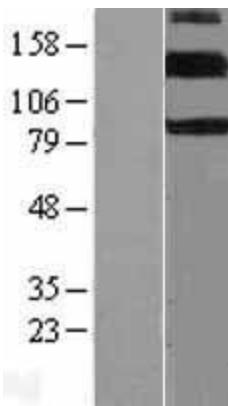
MW: 145.2 kDa

Gene Summary:

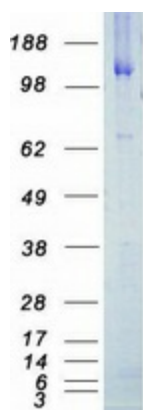
This gene is a member of the Tyr protein kinase family and the epidermal growth factor receptor subfamily. It encodes a single-pass type I membrane protein with multiple cysteine rich domains, a transmembrane domain, a tyrosine kinase domain, a phosphatidylinositol-3 kinase binding site and a PDZ domain binding motif. The protein binds to and is activated by neuregulins and other factors and induces a variety of cellular responses including mitogenesis and differentiation. Multiple proteolytic events allow for the release of a cytoplasmic fragment and an extracellular fragment. Mutations in this gene have been associated with cancer. Alternatively spliced variants which encode different protein isoforms have been described; however, not all variants have been fully characterized. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RC220500



Western blot validation of overexpression lysate (Cat# [LY421001]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220500 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERBB4 protein (Cat# [TP320500]). The protein was produced from HEK293T cells transfected with ERBB4 cDNA clone (Cat# RC220500) using MegaTran 2.0 (Cat# [TT210002]).