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Product datasheet for RC600008

ErbB 4 (ERBB4) (NM_005235) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ErbB 4 (ERBB4) (NM_005235) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	ErbB 4
Synonyms:	ALS19; HER4; p180erbB4
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RC600008 representing leader sequence plus the extracellular domain region of NM_005235
Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGCGAATTCGTCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGAAGCCGGCGACAGGACTTTGGGTCTGGGTGAGCCTTCTCGTGGCGGCGGGGACCGTCCAGCCCAGCG
ATTCTCAGTCAGTGTGTGCAGGAACGGAGAATAAACTGAGCTCTCTCTCTGACCTGGAACAGCAGTACCG
AGCCTTGCGCAAGTACTATGAAAACTGTGAGGTTGTCATGGGCAACCTGGAGATAACCAGCATTGAGCAC
AACCGGGACCTCTCCTTCCTGCGGTCTGTTCGAGAAGTCACAGGCTACGTGTTAGTGGCTCTTAATCAGT
TTCGTTACCTGCCTCTGGAGAATTTACGCATTATTCGTGGGACAAAACTTTATGAGGATCGATATGCCTT
GGCAATATTTTTAAACTACAGAAAAGATGGAAACTTTGGACTTCAAGAACTTGGATTAAAGAACTTGACA
GAAATCCTAAATGGTGGAGTCTATGTAGACCAGAACAAATTCCTTTGTTATGCAGACACCATTCATTGGC
AAGATATTGTTCGGAACCCATGGCCTTCCAACTTGACTCTTGTGTCAACAAATGGTAGTTCAGGATGTGG
ACGTTGCCATAAGTCCTGTACTGGCCGTTGCTGGGGACCCACAGAAAATCATTGCCAGACTTTGACAAGG
ACGGTGTGTGCAGAACAATGTGACGGCAGATGCTACGGACCTTACGTCAGTGACTGCTGCCATCGAGAAT
GTGCTGGAGGCTGCTCAGGACCTAAGGACACAGACTGCTTTGCCTGCATGAATTTCAATGACAGTGGAGC
ATGTGTTACTCAGTGTCCCCAAACCTTTGTCTACAATCCAACCACCTTTCAACTGGAGCACAATTTCAAT
GCAAAGTACACATATGGAGCATTCTGTGTCAAGAAATGTCCACATAACTTTGTGGTAGATTCCAGTTCTT
GTGTGCGTGCCTGCCCTAGTTCCAAGATGGAAGTAGAAGAAAATGGGATTAAAATGTGTAAACCTTGCAC
TGACATTTGCCCAAAAGCTTGTGATGGCATTGGCACAGGATCATTGATGTCAGCTCAGACTGTGGATTCC
AGTAACATTGACAAATTCATAAACTGTACCAAGATCAATGGGAATTTGATCTTTCTAGTCACTGGTATTC
ATGGGGACCCTTACAATGCAATTGAAGCCATAGACCCAGAGAAACTGAACGTCTTTCGGACAGTCAGAGA
GATAACAGGTTTCCTGAACATACAGTCATGGCCACCAAACATGACTGACTTCAGTGTTTTTTCTAACCTG
GTGACCATTGGTGGAAGAGTACTCTATAGTGGCCTGTCCTTGCTTATCCTCAAGCAACAGGGCATCACCT
CTCTACAGTTCCAGTCCCTGAAGGAAATCAGCGCAGGAAACATCTATATTACTGACAACAGCAACCTGTG
TTATTATCATACCATTAACTGGACAACACTCTTCAGCACAATCAACCAGAGAATAGTAATCCGGGACAAC
AGAAAAGCTGAAAATTGTACTGCTGAAGGAATGGTGTGCAACCATCTGTGTTCCAGTGATGGCTGTTGGG
GACCTGGGCCAGACCAATGTCTGTCGTGTCGCCGCTTCAGTAGAGGAAGGATCTGCATAGAGTCTTGTAA
CCTCTATGATGGTGAATTTCGGGAGTTTGAGAATGGCTCCATCTGTGTGGAGTGTGACCCCCAGTGTGAG
AAGATGGAAGATGGCCTCCTCACATGCCATGGACCGGGTCCTGACAACTGTACAAAGTGCTCTCATTTTA
AAGATGGCCCAAACTGTGTGGAAAAATGTCCAGATGGCTTACAGGGGGCAAACAGTTTCATTTTCAAGTA
TGCTGATCCAGATCGGGAGTGCCACCCATGCCATCCAAACTGCACCCAAGGGTGTAACGGTCCCACTAGT
CATGACTGCATTTACTACCCATGGACGGGCCATTCCACTTTACCACAACATGCTAGAACTCCC

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTCGACTCTAGA

Protein Sequence:

>RC600008 representing signal peptide plus the extracellular domain region of NM_005235
Red=Cloning sites Green= DDK and 6XHIS Tags

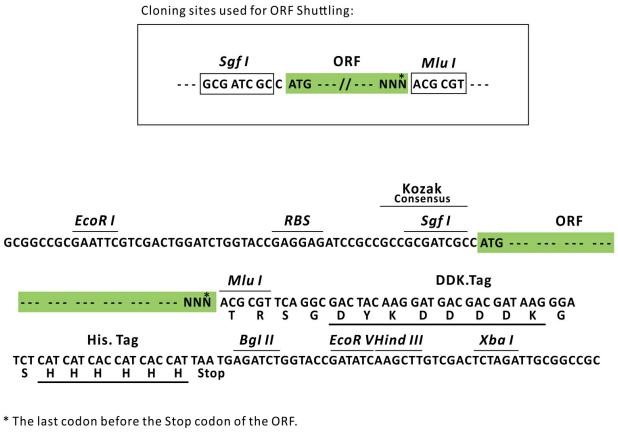
MKPATGLWVWVSLLVAAGTVQPSDSQSVCAGTENKLSSLSDLEQQYRALRKYYENCEVVMGNLEITSIEH
NRDLSFLRSVREVTGYVLVALNQFRYLPLENLRIIRGTKLYEDRYALAIFLNYRKDGNFGLQELGLKNLT
EILNGGVYVDQNKFLCYADTIHWQDIVRNPWPSNLTLVSTNGSSGCGRCHKSCTGRCWGPTENHCQTLTR
TVCAEQCDGRCYGPYVSDCCHRECAGGCSGPKDTDCFACMNFNDSGACVTQCPQTFVYNPTTFQLEHNFN
AKYTYGAFCVKKCPHNFVVDSSSCVRACPSSKMEVEENGIKMCKPCTDICPKACDGIGTGSLMSAQTVDS
SNIDKFINCTKINGNLIFLVTGIHGDPYNAIEAIDPEKLNVFRTVREITGFLNIQSWPPNMTDFSVFSNL
VTIGGRVLYSGLSLLILKQQGITSLQFQSLKEISAGNIYITDNSNLCYYHTINWTTLFSTINQRIVIRDN
RKAENCTAEGMVCNHLCSSDGCWGPGPDQCLSCRRFSRGRICIESCNLYDGEFREFENGSICVECDPQCE
KMEDGLLTCHGPGPDNCTKCSHFKDGPNCVEKCPDGLQGANSFIFKYADPDRECHPCHPNCTQGCNGPTS
HDCIYYPWTGHSTLPQHARTP

TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms: https://cdn.origene.com/chromatograms/mk8117_d01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005235

ORF Size: 1953 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 extra cellular domain of the protein 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_005235.2, NP_005226.1
RefSeq Size:	11941 bp
RefSeq ORF:	3927 bp
Locus ID:	2066
UniProt ID:	Q15303
Cytogenetics:	2q34
Domains:	Recep_L_domain, pkinase, TyrKc, S_TKc, YLP, Furin-like, FU
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Calcium signaling pathway, Endocytosis, ErbB signaling pathway
MW:	72.4 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 phosphotidylinositol-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]