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Product datasheet for RC600006

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:	DDK-His
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:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RC600006 representing leader sequence plus the extracellular domain region of NM_001982
Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGCGAATTCGTCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGAGGGCGAACGACGCTCTGCAGGTGCTGGGCTTGCTTTTCAGCCTGGCCCGGGGCTCCGAGGTGGGCA
ACTCTCAGGCAGTGTGTCCTGGGACTCTGAATGGCCTGAGTGTGACCGGCGATGCTGAGAACCAATACCA
GACACTGTACAAGCTCTACGAGAGGTGTGAGGTGGTGATGGGGAACCTTGAGATTGTGCTCACGGGACAC
AATGCCGACCTCTCCTTCCTGCAGTGGATTCGAGAAGTGACAGGCTATGTCCTCGTGGCCATGAATGAAT
TCTCTACTCTACCATTGCCCAACCTCCGCGTGGTGCGAGGGACCCAGGTCTACGATGGGAAGTTTGCCAT
CTTCGTCATGTTGAACTATAACACCAACTCCAGCCACGCTCTGCGCCAGCTCCGCTTGACTCAGCTCACC
GAGATTCTGTCAGGGGGTGTTTATATTGAGAAGAACGATAAGCTTTGTCACATGGACACAATTGACTGGA
GGGACATCGTGAGGGACCGAGATGCTGAGATAGTGGTGAAGGACAATGGCAGAAGCTGTCCCCCCTGTCA
TGAGGTTTGCAAGGGGCGATGCTGGGGTCCTGGATCAGAAGACTGCCAGACATTGACCAAGACCATCTGT
GCTCCTCAGTGTAATGGTCACTGCTTTGGGCCCAACCCCAACCAGTGCTGCCATGATGAGTGTGCCGGGG
GCTGCTCAGGCCCTCAGGACACAGACTGCTTTGCCTGCCGGCACTTCAATGACAGTGGAGCCTGTGTACC
TCGCTGTCCACAGCCTCTTGTCTACAACAAGCTAACTTTCCAGCTGGAACCCAATCCCCACACCAAGTAT
CAGTATGGAGGAGTTTGTGTAGCCAGCTGTCCCCATAACTTTGTGGTGGATCAAACATCCTGTGTCAGGG
CCTGTCCTCCTGACAAGATGGAAGTAGATAAAAATGGGCTCAAGATGTGTGAGCCTTGTGGGGGACTATG
TCCCAAAGCCTGTGAGGGAACAGGCTCTGGGAGCCGCTTCCAGACTGTGGACTCGAGCAACATTGATGGA
TTTGTGAACTGCACCAAGATCCTGGGCAACCTGGACTTTCTGATCACCGGCCTCAATGGAGACCCCTGGC
ACAAGATCCCTGCCCTGGACCCAGAGAAGCTCAATGTCTTCCGGACAGTACGGGAGATCACAGGTTACCT
GAACATCCAGTCCTGGCCGCCCCACATGCACAACTTCAGTGTTTTTTCCAATTTGACAACCATTGGAGGC
AGAAGCCTCTACAACCGGGGCTTCTCATTGTTGATCATGAAGAACTTGAATGTCACATCTCTGGGCTTCC
GATCCCTGAAGGAAATTAGTGCTGGGCGTATCTATATAAGTGCCAATAGGCAGCTCTGCTACCACCACTC
TTTGAACTGGACCAAGGTGCTTCGGGGGCCTACGGAAGAGCGACTAGACATCAAGCATAATCGGCCGCGC
AGAGACTGCGTGGCAGAGGGCAAAGTGTGTGACCCACTGTGCTCCTCTGGGGGATGCTGGGGCCCAGGCC
CTGGTCAGTGCTTGTCCTGTCGAAATTATAGCCGAGGAGGTGTCTGTGTGACCCACTGCAACTTTCTGAA
TGGGGAGCCTCGAGAATTTGCCCATGAGGCCGAATGCTTCTCCTGCCACCCGGAATGCCAACCCATGGAG
GGCACTGCCACATGCAATGGCTCGGGCTCTGATACTTGTGCTCAATGTGCCCATTTTCGAGATGGGCCCC
ACTGTGTGAGCAGCTGCCCCCATGGAGTCCTAGGTGCCAAGGGCCCAATCTACAAGTACCCAGATGTTCA
GAATGAATGTCGGCCCTGCCATGAGAACTGCACCCAGGGGTGTAAAGGACCAGAGCTTCAAGACTGTTTA
GGACAAACACTGGTGCTGATCGGCAAAACCCATCTGACA

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTCGACTCTAGA

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Protein Sequence:

>RC600006 representing signal peptide plus the extracellular domain region of NM_001982
Red=Cloning sites Green= DDK and 6XHIS Tags

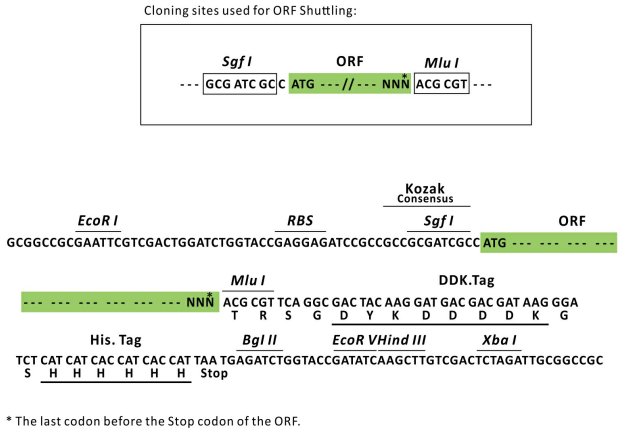
MRANDALQVLGLLFSLARGSEVGNSQAVCPGTLNGLSVTGDAENQYQTLYKLYERCEVVMGNLEIVLTGH
NADLSFLQWIREVTGYVLVAMNEFSTLPLPNLRVVRGTQVYDGKFAIFVMLNYNTNSSHALRQLRLTQLT
EILSGGVYIEKNDKLCHMDTIDWRDIVRDRDAEIVVKDNGRSCPPCHEVCKGRCWGPGSEDCQTLTKTIC
APQCNGHCFGPNPNQCCHDECAGGCSGPQDTDCFACRHFNDSGACVPRCPQPLVYNKLTFQLEPNPHTKY
QYGGVCVASCPHNFVVDQTSCVRACPPDKMEVDKNGLKMCEPCGGLCPKACEGTGSGSRFQTVDSSNIDG
FVNCTKILGNLDFLITGLNGDPWHKIPALDPEKLNVFRTVREITGYLNIQSWPPHMHNFSVFSNLTTIGG
RSLYNRGFSLLIMKNLNVTSLGFRSLKEISAGRIYISANRQLCYHHSLNWTKVLRGPTEERLDIKHNRPR
RDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEPREFAHEAECFSCHPECQPME
GTATCNGSGSDTCAQCAHFRDGPHCVSSCPHGVLGAKGPIYKYPDVQNECRPCHENCTQGCKGPELQDCL
GQTLVLIGKTHLT

TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms: https://cdn.origene.com/chromatograms/mk8117_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001982

ORF Size: 1929 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.

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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_001982.3, NP_001973.2
RefSeq Size:	5765 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
MW:	71.1 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]

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