

Product datasheet for **RC600005**

Her2 (ERBB2) (NM_004448) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Her2 (ERBB2) (NM_004448) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	Her2
Synonyms:	CD340; HER-2; HER-2/neu; HER2; MLN 19; NEU; NGL; TKR1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600005 representing leader sequence plus the extracellular domain region of NM_004448

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGGAGCTGGCGCCTTGTGCCGCTGGGGCTCCTCCTCGCCCTTTGCCCCCGGAGCCGCGAGCACCC
AAGTGTGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCGAGACCCACCTGGACATGCTCCG
CCACCTTACCAGGGCTGCCAGGTGGTGCAGGAAACCTGGAACCTCACCTACCTGCCACCAATGCCAGC
CTGTCTTCTCGCAGGATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGG
TCCCACTGCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCT
AGACAATGGAGACCCGCTGAACAATACCACCCCTGTCACAGGGGCTCCCGAGGAGGCTGCGGGAGCTG
CAGCTTCAAGCCTCACAGAGATCTTGAAGGAGGGGTCTTGATCCAGCGGAACCCCGAGCTCTGCTACC
AGGACACGATTTTGTGGAAGGACATCTTCCACAAGAACAACAGCTGGCTCTCACACTGATAGACACCAA
CCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAGGGCTCCCGCTGCTGGGGAGAGAGTTCTGAG
GATTGTACAGGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCCCGCTGCAAGGGGCCACTGCCCACTG
ACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCAAGCACTCTGACTGCCTGGCTGCCTCCA
CTTCAACCACAGTGGCATCTGTGAGCTGCAGTCCAGCCCTGGTCACTACAACACAGACACGTTTGAG
TCCATGCCCAATCCCGAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCCTACAACCTACC
TTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAGGATGG
AAGCAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTTGTGCTGCAAGAAGATCTTTGGGAGCC
TGGCATTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCGCTCCAGCCAGAGCAGCT
CCAAGTGTGAGACTCTGGAAGAGATCACAGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCT
GACCTCAGCGTCTTCCAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGA
CCCTGCAAGGGCTGGGCATCAGCTGGCTGGGGCTGCGCTCACTGAGGGAAGTGGGAGTGGACTGGCCCT
CATCCACCATAACACCCACCTCTGCTTCTGTGCACACGGTGCCTGGGACCAGCTCTTTCGGAACCCGCAC
CAAGCTCTGCTCCACTGCCAACCGCCAGAGGACGAGTGTGTGGCGAGGGCCTGGCCTGCCACCAGC
TGTGCCCGGAGGGCACTGCTGGGTCCAGGGCCACCCAGTGTGTCACTGCAGCCAGTTCCTTCGGGG
CCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTCCCGAGGAGTATGTGAATGCCAGGCAGTGT
TTGCCGTGCCACCCCTGAGTGTGACCCCCAGAATGGCTCAGTGACCTGTTTGGACCGGAGGCTGACCAGT
GTGTGGCCTGTGCCCACTATAAGGACCCTCCCTTCTGCGTGGCCCGCTGCCCGAGCGGTGTGAAACCTGA
CCTCTCTACATGCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCTTGCCCATCAACTGC
ACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCGCCGAGCAGAGAGCCAGCCCTCTGACG

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGCGACTCTAGA

Protein Sequence: >RC600005 representing signal peptide plus the extracellular domain region of NM_004448
Red=Cloning sites **Green**= DDK and 6XHis Tags

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MELAALCRWGLLLALLPPGAASTQVCTGTMKLRLPASPETHLDMLRHL YQGCQVVQGNLELTYLPTNAS
LSFLQDIQEVQGYVLI AHNQVRQVPLQRLRIVRGTQLFEDNYALAVLDNGDPLNNTTPVTGASPGGLREL
QLRSLTEILKGGVLIQRNPQLCYQDTILWKDIFHKNNQLALTLIDTNRSRACHPCSPMCKGSRWGESSE
DCQSLTRTV CAGGCARCKGPLPTDCCHEQCAAGCTGPKHSDCLACLHFNHSGICELHCPALV TYNTDTFE
SMPNPEGRYTFGASCVTACPYNLSTDVGSCTLVCPLHNQEVTAEDGTQRCEKCSKPCARVCYGLGMEHL
REVRAVTSANIQEFAGCKIFGSLAFLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLP
DLSVFQNLQVIRGRILHNGAYSLTQQLGISWGLRSLRELGSLAL IHHNTHLCFVHTVPWDQLFRNPH
QALLHTANRPEDECVGEGLACHQLCARGHCWGPPTQCVNCSQFLRGQECVEECRVLQGLPREYVNRHC
LPCHPEQPQNGSVTCFGPEADQCVACAHYKDPPFCVARCPSGVKPDLSYMPIWKFPDEEGACQPCPINC
THSCVDLDDKGPAPAEQRASPLT
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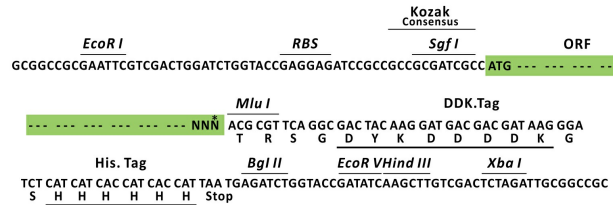
TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms: https://cdn.origene.com/chromatograms/ja2101_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF.

ACCN: NM_004448

ORF Size: 1956 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 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:	<ol style="list-style-type: none"> 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_004448.3 , NP_004439.2
RefSeq Size:	4664 bp
RefSeq ORF:	3768 bp
Locus ID:	2064
UniProt ID:	P04626
Cytogenetics:	17q12
Domains:	Recep_L_domain, pkinase, TyrKc, S_TKc, YLP, Furin-like, FU
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Adherens junction, Bladder cancer, Calcium signaling pathway, Endometrial cancer, ErbB signaling pathway, Focal adhesion, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Prostate cancer
MW:	71.6 kDa

Gene Summary:

This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. [provided by RefSeq, Jul 2008]