

## Product datasheet for RC212583

### 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:	Myc-DDK
Symbol:	Her2
Synonyms:	CD340; HER-2; HER-2/neu; HER2; MLN 19; NEU; NGL; TKR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212583 representing NM_004448 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGAGCTGGCGGCTTGTGCCGCTGGGGCTCCTCCTCGCCCTTTGCCCCCGGAGCCGCGAGCACCC  
AAGTGTGACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACCTGGACATGCTCCG  
CCACCTTACCAGGGCTGCCAGGTGGTGCAGGAAACCTGGAACCTACCTACCTGCCACCAATGCCAGC  
CTGTCTTCTGCAAGATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGG  
TCCCACCTGCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACATGCCCCTGGCCGTGCT  
AGACAATGGAGACCCGCTGAACAATACCACCCCTGTACAGGGGCTCCCGAGGAGGCTGCGGGAGCTG  
CAGCTTCGAAGCCTCACAGAGATCTTGAAGGAGGGGTCTTGATCCAGCGGAACCCAGCTCTGTACTACC  
AGGACACGATTTTGTGGAAGGACATCTTCCACAAGAACAACAGCTGGCTCTCACACTGATAGACACCAA  
CCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAGGGCTCCCGCTGCTGGGGAGAGATTCTGAG  
GATTGTGACAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCCCGTCAAGGGGCCACTGCCCACTG  
ACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCAAGCACTCTGACTGCCTGGCTGCCTCCA  
CTTCAACCACAGTGGCATCTGTGAGTGCAGTCCAGCCCTGGTACCTACAACACAGACACGTTTGGAG  
TCCATGCCCAATCCCAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCCTACAACCTACC  
TTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAGGATGG  
AACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG  
CGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTTGGTGGCTGCAAGAAGATCTTTGGGAGCC  
TGGCATTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCGCTCCAGCCAGAGCAGCT  
CCAAGTGTGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCT  
GACCTCAGCGTCTCCAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGA  
CCCTGCAAGGGCTGGGCATCAGCTGGCTGGGGCTGCGCTCACTGAGGGAAGTGGGAGTGGACTGGCCCT  
CATCCACCATAACCCACCTCTGCTTCGTGCACAGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCAC



[View online »](#)

CAAGCTCTGCTCCACACTGCCAACCGGCCAGAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGC  
TGTGCGCCCGAGGGCACTGCTGGGGTCCAGGGCCACCCAGTGTGTCAACTGCAGCCAGTTCTTCGGGG  
CCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTCCCCAGGGAGTATGTGAATGCCAGGCACTGT  
TTGCCGTGCCACCCTGAGTGTGACGCCCCAGAATGGCTCAGTGACCTGTTTTGGACTGGAGGCTGACCAGT  
GTGTGGCCTGTGCCACTATAAGGACCCCTCCCTTCTGCGTGGCCCGCTGCCCCAGCGGTGTAAACCTGA  
CCTCTCTACATGCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCTTGCCCCATCACTGC  
ACCCACTCCTGTGTGACCTGGATGACAAGGGCTGCCCCGCCGAGCAGAGAGCCAGCCCTCTGACGTCCA  
TCATCTCTGCGGTGGTTGGCATTCTGCTGGTCTGGTCTTGGGGTGGTCTTGGGATCCTCATCAAGCG  
ACGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG  
ACACCTAGCGGAGCGATGCCAACAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGTGA  
AGGTGCTTGGATCTGGCCTTTTGGCACAGTCTACAAGGCATCTGGATCCCTGATGGGAGAATGTGAA  
AATTCCAGTGGCCATCAAAGTGTGAGGAAAACACATCCCCAAAGCCAAACAAAGAAATCTTAGACGAA  
GCATACGTGATGGCTGGTGTGGCTCCCATATGTCTCCCGCTTCTGGGCATCTGCCTGACATCCACGG  
TGCAGCTGGTACACAGCTTATGCCCTATGGCTGCCTCTAGACCATGTCCGGGAAAACCCGGACGCCCT  
GGGCTCCCAGGACCTGCTGAAGTGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGG  
CTCGTACACAGGACTTGGCCGCTCGGAACGTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACT  
TCGGGCTGGCTCGGCTGCTGGACATTGACGAGACAGAGTACCATGCAGATGGGGGCAAGGTGCCATCAA  
GTGGATGGCGCTGGAGTCCATTCTCCGCGCGGGTTACCCACCAGAGTATGTGTGGAGTTATGGTGTG  
ACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGGATCCCAGCCCGGAGATCCCTGACC  
TGCTGGAAAAGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTTGATGTCTACATGATCATGGTCAA  
ATGTTGGATGATTGACTCTGAATGTCCGCCAAGATTCGGGAGTTGGTGTCTGAATCTCCCGCATGGCC  
AGGGACCCCGAGCGCTTGTGGTCCAGAAATGAGGACTTGGGCCAGCCAGTCCCTTGGACAGCACCT  
TCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTACCCCA  
GCAGGGCTTCTTCTGTCCAGACCCTGCCCCGGGCGCTGGGGCATGGTCCACCACAGGCACCGCAGCTCA  
TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGCCCCAGGTCTC  
CACTGGCACCCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTACCTGGGAATGGGGGACCCAAAGG  
GCTGCAAAGCCTCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAAGGACCCACAGTACCCCTG  
CCCTCTGAGACTGATGGCTACGTTGCCCCCTGACCTGCAGCCCCAGCCTGAATATGTGAACCAGCCAG  
ATGTTCCGCCCCAGCCCCCTCGCCCCGAGAGGGCCCTCTGCCTGCTGCCGACCTGCTGGTGCACCTCT  
GGAAAGGCCAAAGACTCTCTCCCAGGGAAGAATGGGGTCTGCAAGACGTTTTTGCCTTTGGGGGTGCC  
GTGGAGAACCCGAGTACTTGACACCCAGGGAGGAGCTGCCCTCAGCCCCACCCTCCTCTGCCTTCA  
GCCAGCCTTCGACAACCTCTATTACTGGGACCAGGACCCACCAGAGCGGGGGCTCCACCCAGCACCTT  
CAAAGGGACACCTACGGCAGAGAACCAGAGTACCTGGGTCTGGACGTGCCAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >RC212583 representing NM\_004448  
 Red=Cloning site Green=Tags(s)

MELAALCRWGLLLALLPPGAASTQVCTGTMKRLRASPETHLDMLRHL YQGCQVVGQNLLETYLPTNAS  
 LSFLQDIQEVQGYVLI AHNQVRQVPLQRLRIVRGTLFEDNYALAVLDNGDPLNNTTPVTGASPGGLREL  
 QLRSLTEILKGGVLIQRNPQLCYQDTILWKDIFHKNNQLAL TLIDTNRSRACHPCSPMCKGSRGWESSE  
 DCQSLTRTVACGGCARCKGPLPTDCCHEQCAAGCTGPKHSDCLACLHFNHSGICELHCPALVTYNTDFFE  
 SMPNPEGRYTFGASCVTACPYYNLSTDVGSCTLVCPHMQEVTAEADGTQRCEKCSKPCARVCYGLGMEHL  
 REVRAVTSANIQEFAGCKIFGSLAFLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSL  
 DLSVFNQLQVIRGRILHNGAYSLLTQQLGISWGLRSLRELGSLAL IHHNTHLCFVHTVPWDQLFRNPH  
 QALLHTANRPEDECVGEGLACHQLCARGHCWGPPTQCVNCSQFLRGQECVEECRVLQGLPREYVNRHC  
 LPCHPECPQNGSVTCFGLADQCACAHYKDPFPCVARCPSGVKPDLSYMPIWKFPDEEGACQPCPINC  
 THSCVDLDDKGPAPQRASPLTSIISAVVGILLVVVLGVVFGIL IKRRQQKIRKYTMRRLLQETELVEPL  
 TPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPVAIKVLRNTPKANKEILDE  
 AYYMAGVGSPIVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNWCMIKAGMSYLEDVR  
 LVHRDLAARNVLKSPNHVKITDFGLARLLDIDETEHADGGKVPKWMAL ESILRRRFTHQSDVWSYGV  
 TVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPICTIDVYIMVCKWMDSECRPRFRELVSF SRMA  
 RDPQRFFVIQNE DLGPASPLDSTFYRSLLEDDDMGDLVDAEEYLVPQQGFPCPDPAAGAGMVHHRHRS  
 STRSGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMGAAGLQSLPTHDPSPQLRYSQEDPTVPL  
 PSETDGYVAPLTCSPQPEYVNPQDVRPQPPSPREGPLPAARPAGATLERPKT LSPGKNGVVKDVF AFGGA  
 VENPEYLTPQGGAAPQPHPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPAENPEYLGLDVVPV

TRTRPLEQKLISEEDLAANDILDYKDDDDK

Chromatograms: [https://cdn.origene.com/chromatograms/mg2577\\_f09.zip](https://cdn.origene.com/chromatograms/mg2577_f09.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_004448

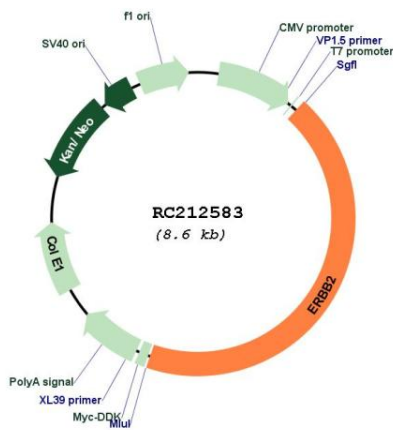
ORF Size: 3765 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004448.4</a>
<b>RefSeq Size:</b>	4624 bp
<b>RefSeq ORF:</b>	3768 bp
<b>Locus ID:</b>	2064
<b>UniProt ID:</b>	<a href="#">P04626</a>
<b>Cytogenetics:</b>	17q12
<b>Domains:</b>	Recep_L_domain, pkinase, TyrKc, S_TKc, YLP, Furin-like, FU
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	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
<b>MW:</b>	137.7 kDa

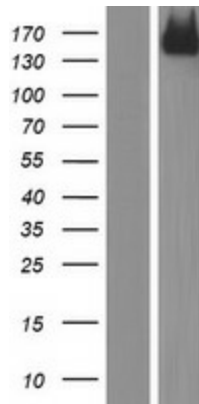
**Gene Summary:**

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]

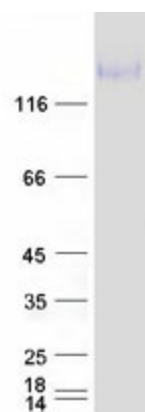
**Product images:**



Circular map for RC212583



Western blot validation of overexpression lysate (Cat# [LY417979]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212583 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERBB2 protein (Cat# [TP312583]). The protein was produced from HEK293T cells transfected with ERBB2 cDNA clone (Cat# RC212583) using MegaTran 2.0 (Cat# [TT210002]).