

Product datasheet for SC323573

Her2 (ERBB2) (NM_004448) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Her2 (ERBB2) (NM_004448) Human Untagged Clone
Tag:	Tag Free
Symbol:	Her2
Synonyms:	CD340; HER-2; HER-2/neu; HER2; MLN 19; NEU; NGL; TKR1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004448, the custom clone sequence may differ by one or more nucleotides

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ATGGAGCTGGCGCCTTGTGCCGCTGGGGCTCCTCCTCGCCCTCTTGCCCCGGAGCCGCGAGCACCC
AAGTGTGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACCTGGACATGCTCCG
CCACCTTACCAGGGCTGCCAGGTGGTGCAGGAAACCTGGAACCTCACCTACCTGCCACCAATGCCAGC
CTGTCTTCTCAGGATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGG
TCCCATGCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCT
AGACAATGGAGACCCGCTGAACAATAACCACCCCTGTCACAGGGGCTCCCCAGGAGGCTGCGGGAGCTG
CAGCTTCGAAGCCTCACAGAGATCTTGAAGGAGGGGTCTTGATCCAGCGGAACCCAGCTCTGCTACC
AGGACACGATTTTGTGGAAGGACATCTCCACAAGAACAACCAGCTGGCTCTCACACTGATAGACACCAA
CCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAGGGCTCCCGCTGCTGGGGAGAGATTCTGAG
GATTGTGACAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCCCGCTGCAAGGGGCCACTGCCCACTG
ACTGCTGCCATGAGCAGTGTGCTGCCGGTGCACGGGCCCAAGCACTCTGACTGCCTGGCTGCCTCCA
CTTCAACCACAGTGGCATCTGTGAGTGCAGTCCAGCCCTGGTCACTACAACACAGACACGTTTGAG
TCCATGCCAATCCCAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCCTACAACCTACC
TTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAGGATGG
AACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTTGCTGGCTGCAAGAAGATCTTTGGGAGCC
TGGCATTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCGCTCCAGCCAGAGCAGCT
CCAAGTGTGAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCT
GACCTCAGCGTCTCCAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGTGA
CCCTGCAAGGGCTGGGCATCAGTGGCTGGGGCTGCGCTCACTGAGGGAACCTGGGCAGTGGACTGGCCCT
CATCCACCATAACACCCACCTCTGCTTCGTGCACACGGTGCCTGGGACCAGCTCTTTCCGAACCCGCAC
CAAGCTCTGCTCCACTGCCAACCGGCCAGGACGAGTGTGTGGCGAGGGCCTGGCCTGCCACCAGC
TGTGCGCCGAGGGCACTGCTGGGTCCAGGGCCACCCAGTGTGTCACTGCAGCCAGTTCCTTCGGG
  
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CCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTCCCCAGGGAGTATGTGAATGCCAGGCACTGT
 TTGCCGTGCCACCCTGAGTGTACAGCCCCAGAATGGCTCAGTGACCTGTTTTGGACCGGAGGCTGACCAGT
 GTGTGGCTGTGCCACTATAAGGACCCTCCCTTCTGCGTGGCCCGTCCCCAGCGGTGTGAAACCTGA
 CCTCTCTACATGCCATCTGGAAGTTCCAGATGAGGAGGGCGCATGCCAGCCTTGCCCATCAACTGC
 ACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCGCCGAGCAGAGAGCCAGCCCTCTGACGTCCA
 TCATCTCTGCGGTGGTTGGCATTCTGCTGGTCTGGTCTTGGGGTGGTCTTTGGGATCCATCAAGCC
 ACGGCAGCAGAAGATCCGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG
 ACACCTAGCGGAGCGATGCCAACCAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGA
 AGGTGCTTGATCTGGCCTTTTGGCACAGTCTACAAGGCATCTGGATCCCTGATGGGGAGAATGTGAA
 AATTCCAGTGGCCATCAAAGTGTGAGGGAAAACACATCCCCAAAGCCAACAAAGAAATCTTAGACGAA
 GCATACGTGATGGCTGGTGTGGGCTCCCCATATGTCTCCCGCTTCTGGGCATCTGCCTGACATCCACGG
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 TGCTGGAAAAGGGGAGCGGCTGCCAGCCCCCATCTGCACCATGATGTCTACATGATCATGGTCAA
 ATGTTGGATGATTGACTCTGAATGTGCGCAAGATTCCGGGAGTTGGTGTCTGAATCTCCCGCATGGCC
 AGGGACCCCCAGCGCTTGTGGTCCAGAAATGAGGACTTGGGCCAGCCAGTCCCTTGGACAGCACCT
 TCTACCGCTCACTGCTGGAGGACGATGACATGGGGACCTGGTGGATGCTGAGGAGTATCTGGTACCCCA
 GCAGGGCTTCTTGTCCAGACCCTGCCCGGGCGCTGGGGCATGGTCCACCACAGGCACCGCAGCTCA
 TCTACCAGGAGTGGCGTGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGCCCCAGGTCTC
 CACTGGCACCTCCGAAGGGGCTGGCTCCGATGATTTGATGGTACCTGGGAATGGGGGACGCCAAGGG
 GCTGCAAAGCCTCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAAGACCCACAGTACCCTG
 CCCTCTGAGACTGATGGTACGTTGCCCCCTGACCTGCAGCCCCAGCCTGAATATGTGAACCAGCCAG
 ATGTTCCGCCAGCCCCCTCGCCCCGAGAGGGCCCTCTGCCTGCTGCCGACCTGCTGGTGCCTCT
 GGAAAGGCCCAAGACTCTCTCCAGGGGAAGAATGGGGTCTGCAAGACGTTTTTGCCTTTGGGGTGGC
 GTGGAGAACCCGAGTACTTACACCCAGGGAGGAGTGCCTCAGCCCCACCCTCTCTGCTTCA
 GCCCAGCCTTCGACAACCTCTATTACTGGGACCAGGACCACAGAGCGGGGGCTCCACCAGCACCTT
 CAAAGGGACACCTACGGCAGAGAACCAGAGTACCTGGGTCTGGACGTGCCAGTGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004448 unedited
 ACCGCCCCGTTTCAGCAATGGGCGGTAGGCGTGTACGGGGCGAGAGGTCTATATAAGCAGAGCTCGTTTAG
 TGAACCGAACAGAATTTTGTAAACGACTCACTATAGGGCGCCGCAATTCGGCAGGAGGGGCGCGGAG
 CCGCAGTGAGCACCATGGAGCTGGCGGCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGG
 AGCCGCGAGCACCAAGTGTGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCGAGACCCAC
 CTGGACATGCTCCGCCACCCTCTACAAGGCTGCCAGGTGGGTGGCAGGGGAAACCTGGAACCTCACC
 TTCCCTTGTTTTTCTTTTGGCCCGCCGGTCTTTCTGCAGGAATATCCAGAAGGTGCCAGGGGCTACT
 TGCTTAATCGCTTAACAACCAAAATTGAGGGCAGGGTCCCCTGGCAAAAGGCTGGCGGAATTTGGGCCAA
 GGGCCCCACTTTTTTGAAGGCAAACTTTGCCCGGGCCCGGGCCTAAAACAATGGAAAACCCGGCGAA
 ACAAATCCCCCCCCGGGACAAAAGGGGGCCCTCCCAAAGGAAAGCCCGGGCGGGAACCGTGCACTTTCA
 AACCCCTCAAGAGAAAATTTTGAAGGGGGGGGGTTTTTGTACCCCGGGGAACCCCCCGGCTTTGGG
 TTTCCCAGAGACCAAAAATTTTGGGAAAGGGGACTTTTTCCACAAAAAACACCCTGTGGTCTCATC
 ACATCGTGAATACACACACACCTTTTTCTGGGGCTCATGCCACCCTGTGTGTTTCTCACGATGTGT
 ATGAGGGGCTCCCTGTTGTCTGTGGGAGAGAAAATTTTTCTTAGAGAGGATTGATATAAACTCCTG
 CCCGCCCGGATAATGTGTTTCTGCCCG

Kinase Domain Sequence: >SC323573 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

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AWCTGCWCTGGCGCTTTTGGCAAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCC
AGTGGCCATCATGGTGTGAGGGAAAACACATCCCCCAAAGCCAAAGAAATCTTAGACGAAGCATAC
GTGATGGCTGGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGC
TGGTGACACAGCTTATGCCCTATGGCTGCCTCTTAGACCATGTCC
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Restriction Sites: Please inquire

ACCN: NM_004448

Insert Size: 4000 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." [Cell, 2008 May p536-548.](#)

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_004448.2](#), [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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a).</p>