

Product datasheet for **SC323549**

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
AAGTGTGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACTGGACATGCTCCG
CCACCTTACCAGGGCTGCCAGGTGGTGCAGGAAACCTGGAACCTCACCTACCTGCCACCAATGCCAGC
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TCCCCTGCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCT
AGACAATGGAGACCCGCTGAACAATAACCACCCCTGTCACAGGGGCTCCCCAGGAGGCTGCGGGAGCTG
CAGCTTCGAAGCCTCACAGAGATCTTGAAGGAGGGGTCTTGATCCAGCGGAACCCAGCTCTGCTACC
AGGACACGATTTTGTGGAAGGACATCTCCACAAGAACAACCAGCTGGCTCTCACACTGATAGACACCAA
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GATTGTGACAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCCCGCTGCAAGGGGCCACTGCCCACTG
ACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCAAGCACTCTGACTGCCTGGCTGCCTCCA
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TTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAGGATGG
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CCAAGTGTGAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCT
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CATCCACCATAACACCCACCTCTGCTTCGTGCACACGGTGCCTGGGACCAGCTCTTTCCGAACCCGCAC
CAAGCTCTGCTCCACTGCCAACCGGCCAGGACGAGTGTGTGGCGAGGGCCTGGCCTGCCACCAGC
TGTGCGCCCGAGGGCACTGCTGGGTCCAGGGCCACCCAGTGTGTCACTGCAGCCAGTTCCTTCGGG
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CCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTCCCCAGGGAGTATGTGAATGCCAGGCACTGT
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 GCAGGGCTTCTTGTCCAGACCCTGCCCGGGCGCTGGGGCATGGTCCACCACAGCCAGCCAGCTCA
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 CACTGGCACCCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTACCTGGGAATGGGGGACGCCAAGGG
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 GTGGAGAACCCGAGTACTTACACCCAGGGAGGAGCTGCCCTCAGCCCCACCTCTCTGCTTCA
 GCCCAGCCTTCGACAACCTCTATTACTGGGACCAGGACCCAGAGCGGGGGCTCCACCCAGCACCTT
 CAAAGGGACACCTACGGCAGAGAACCAGAGTACCTGGGTCTGGACGTGCCAGTGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004448 unedited
 CCGCACGTTAGCAGCAAAGGGCAGGTAGGCGTGTACGGAGGGAGGGCTCTATATAAGCAGAGCTCGTTTA
 GCGAACCGTCAGAATATTGTAATACGACTACTATAGGGCGCCGCGAATACGGCAGGAGGGAGGGTGT
 CGCTTCCCATGCGGGGTAGAACCTTTGCTGTCCTGTTACCACCTCTACCTCCAGCACAGAAATTTGGCTT
 ATGCCTACTCAATGTGAAGATGATGAGGATGAAAACCTTTGTGATGATTCCACTTCCACTTAATGAATGG
 TGGCAAAGCAAAGCTATATTCAAGACCACATGCAAAGCTACTCCCTGAGCAAAGAGTACAGATAAAACG
 GGGCACCAAGTAGAATGGCCAGGACAAACGCAAGTGCAGCACAGAGACTCAGACCTGGCAGCCATGCCTG
 CGCAGGACAGTATGAGAGTGACATGACTGTTGTGGACATGCACAAAGTGAAGTGTGACCCGGCACAGACA
 TGAAGCTGCGGCTCCCTGCCAGTCCGAGACCACCTGACATGCTCGCACCTTACCAGGCTGCAAGTGTG
 CAGGAACTTGACCTAACTACTTGGCCACAATGCAGCTTGTCTCTGCAGATTATCAGAAGGTGCAGCTAC
 TGGCCTAATCGCTACAACATTAAGGCAGTTCCTACTGCAAAGGCTGCGAATTTGTGCAAGGCCACCAAGT
 CCTTGAGAGCACCATTGCTTGGCTGTCTAGCATGGGAAACCGTGTGAACAATACCCCAAGTGTCAATGCC
 TCTCAGAGAGCCTCTGGGAACTGCGACCTAAGCCTCAAGATCTCGAAGAGAGGCTGGATACCGAACCAC
 TCGTCCAGACCGATTGAGACTTCAGGAGAAACCGTGTCTCACGTGAACCACGCTTGGTACGCTAGTAAGG
 TCCACT

Kinase Domain Sequence:	>SC323549 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 AWCTGCACTGGCGCTTTTGGCAAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCC AGTGGCCATCATGGTGTGAGGGAAAACACATCCCCAAAGCCAACAAAGAAATCTTAGACGTTGGATGA TTGACTCTGAATGTCGGCCAAGATTCCGGGAGTTGGTGTCTGAATTCTCCCGCATGGCCAGGGACCCCA GCGCTTTGTGGTCATCCAGAATGAGGACTTGGGCCAGCCAGTCC
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:	<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_004448.2 , 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>