

Rabbit HER2 Polyclonal Antibody | anti-HER2 antibody

Phospho-HER2 (Tyr877) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA30972	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, Immunoprecipitation, ELISA

PRODUCT SYNONYMS

HER2; Polyclonal Antibody; Phospho-HER2 (Tyr877) Antibody; Verb b2 erythroblastic leukemia viral oncogene homolog 2; neuro/glioblastoma derived oncogene homolog; C erb B2/neu protein; CD340; CD340 antigen; Cerb B2/neu protein; CerbB2; Erb b2 receptor tyrosine kinase 2; ERBB2; ERBB2_HUMAN; HER 2; HER 2/NEU; Herstatin; Human epidermal growth factor receptor 2; Metastatic lymph node gene 19 protein; MLN 19; MLN19; NEU; NEU proto oncogene; Neuro/glioblastoma derived oncogene homolog; Neuroblastoma/glioblastoma derived oncogene homolog; NGL; p185erbB2; Proto-oncogene c-ErbB-2; Proto-oncogene Neu; Receptor tyrosine-protein kinase erbB-2; TKR1; Tyrosine kinase type cell surface receptor HER2; Tyrosine kinase-type cell surface receptor HER2; V erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); V erb b2 avian erythroblastic leukemia viral oncogene homolog 2; V erb b2 avian erythroblastic leukemia viral oncoprotein 2; V erb b2 erythroblastic leukemia viral oncogene homolog 2; neuro/glioblastoma derived oncogene homolog (avian); anti-HER2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-HER2 (Tyr877) antibody detects endogenous levels of HER2 only when phosphorylated at Tyrosine 877
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1225
Applicable Applications for anti-HER2 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), IP (Immunoprecipitation), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 IP: 1:100-1:500 IF/ICC: 1:100-1:500
Immunogen	A synthesized peptide derived from human HER2 around the phosphorylation site of Tyrosine 877
Subcellular Location	Cytoplasm. Nucleus and Cell Membrane. Cytoplasm, Perinuclear Region. Nucleus. Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1.
Tissue Specificity	Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (91%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (91%)

Conjugation	Unconjugated
Epitope	Phospho Tyr877
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of HER2 phosphorylation expression in EGF treated MDA-MB-231 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)
AAA30972 at 1/100 staining rat ovarian cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30972 at 1/100 staining rat uterine cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)
AAA30972 staining MDA-MB-231 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)
AAA30972 at 1/100 staining rat gastric cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30972 at 1/100 staining human tongue cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-HER2 antibody	<p>Description: 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.</p> <p>Function: Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MEMO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization.</p> <p>Subunit Structure: Homodimer (PubMed:21454582). Heterodimer with EGFR, ERBB3 and ERBB4 (PubMed:10358079, PubMed:15093539, PubMed:21190959, PubMed:16978839). Part of a complex with EGFR and either PIK3C2A or PIK3C2B. May interact with PIK3C2B when phosphorylated on Tyr-1196 (PubMed:10805725). Interacts with PLXNB1 (PubMed:15210733). Interacts (when phosphorylated on Tyr-1248) with MEMO1 (PubMed:15156151). Interacts with MUC1; the interaction is enhanced by heregulin (HRG) (PubMed:12939402). Interacts (when phosphorylated on Tyr-1139) with GRB7 (via SH2 domain) (PubMed:12975581). Interacts (when phosphorylated on Tyr-1248) with ERBIN (PubMed:12444095). Interacts with KPNB1, RANBP2, EEA1, CRM1 and CLTC (PubMed:16314522). Interacts with PTK6 (PubMed:18719096). Interacts with RPA194 and ACTB (PubMed:21555369). Interacts with PRKCABP, SRC and MYOC (By similarity). Interacts (preferentially with the tyrosine phosphorylated form) with CPNE3; this interaction occurs at the cell membrane and is increased in a growth factor heregulin-dependent manner (PubMed:20010870). Interacts with HSP90AA1 and HSP90AB1 in an ATP-dependent manner; the interaction suppresses ERBB2 kinase activity (PubMed:26517842).</p> <p>Post-translational Modifications: Autophosphorylated. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit (Probable). Ligand-binding increases phosphorylation on tyrosine residues (PubMed:27134172). Signaling via SEMA4C promotes phosphorylation at Tyr-1248 (PubMed:17554007). Dephosphorylated by PTPN12 (PubMed:27134172).</p> <p>Similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.</p>
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NCBI AND UNIPROT INFORMATION

NCBI GI #	54792098
NCBI GeneID	2064
NCBI Accession #	NP_001005862.1
NCBI GenBank Nucleotide #	NM_001005862.2
UniProt Accession #	P04626; Q14256; Q6LDV1; Q9UMK4; B2RZG3; B4DHN3; X5D2V5
Molecular Weight	Observed: 185 kDa Predicted: 138 kDa
NCBI Official Full Name	receptor tyrosine-protein kinase erbB-2 isoform b
NCBI Official Synonym Full Names	erb-b2 receptor tyrosine kinase 2
NCBI Official Symbol	ERBB2
NCBI Official Synonym Symbols	NEU; NGL; HER2; TKR1; CD340; HER-2; MLN 19; HER-2/neu
NCBI Protein Information	receptor tyrosine-protein kinase erbB-2
UniProt Protein Name	Receptor tyrosine-protein kinase erbB-2
UniProt Gene Name	ERBB2
UniProt Synonym Gene Names	HER2; MLN19; NEU; NGL; MLN 19

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

