

Rabbit HER2/ErbB2 Polyclonal Antibody | anti-HER2/ErbB2 antibody

Phospho-HER2/ErbB2 (Thr686) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329649	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%)	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

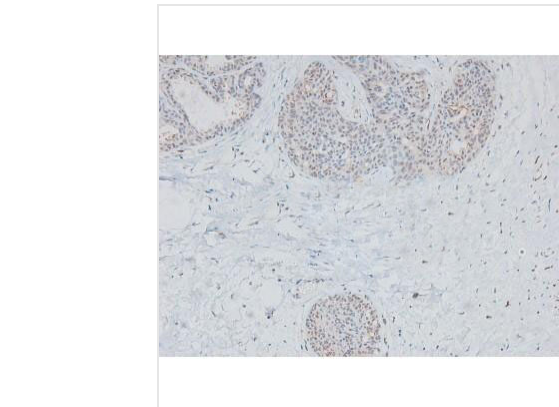
HER2/ErbB2; Polyclonal Antibody; Phospho-HER2/ErbB2 (Thr686) Antibody; Verb b2 erythroblastic leukemia viral oncogene homolog 2; neuro/glioblastoma derived oncogene homolog; C erb B2/neu protein; CD340; CD340 antigen; Cerb B2/neu protein; CerbB2; Erb b2 receptor tyrosine kinase 2; ERBB2; ERBB2_HUMAN; HER 2; HER 2/NEU; HER2; Herstatin; Human epidermal growth factor receptor 2; Metastatic lymphnode 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/ErbB2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-HER2/ErbB2 (Thr686) Antibody detects endogenous levels of HER2/ErbB2 only when phosphorylated at Thr686. Tissue Specificity: Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-HER2/ErbB2 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HER2/ErbB2 around the phosphorylation site of Thr686.
Conjugation	Unconjugated
Fragment	Fab fragment
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. Signaling via SEMA4C promotes phosphorylation at Tyr-1248. Dephosphorylated by PTPN12.

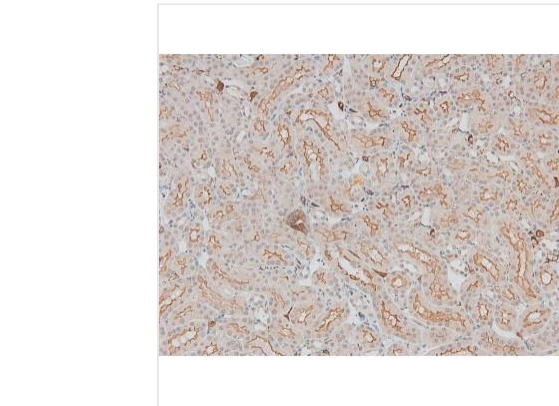
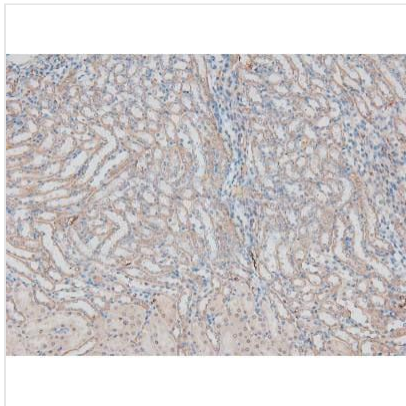
Subunit Structure	Homodimer. Heterodimer with EGFR, ERBB3 and ERBB4. Part of a complex with EGFR and either PIK3C2A or PIK3C2B. May interact with PIK3C2B when phosphorylated on Tyr-1196. Interacts with PLXNB1. Interacts (when phosphorylated on Tyr-1248) with MEMO1. Interacts with MUC1; the interaction is enhanced by heregulin (HRG). Interacts (when phosphorylated on Tyr-1139) with GRB7 (via SH2 domain). Interacts (when phosphorylated on Tyr-1248) with ERBIN. Interacts with KPNB1, RANBP2, EEA1, CRM1 and CLTC. Interacts with PTK6. Interacts with RPA194 and ACTB. 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. Interacts with HSP90AA1 and HSP90AB1 in an ATP-dependent manner; the interaction suppresses ERBB2 kinase activity. Interacts with SORL1; this interaction regulates ERBB2 subcellular distribution by promoting its recycling after internalization from endosomes back to the plasma membrane, hence stimulates ERBB2-mediated signaling.
Similarity	Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.
Subcellular Location	Cell membrane>Single-pass type I membrane protein. Early endosome. Cytoplasm>Perinuclear region. Nucleus. Note: Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1. Also detected in VPS35-positive endosome-to-TGN retrograde vesicles (PubMed:31138794).Cytoplasm. Nucleus. Cytoplasm. Nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



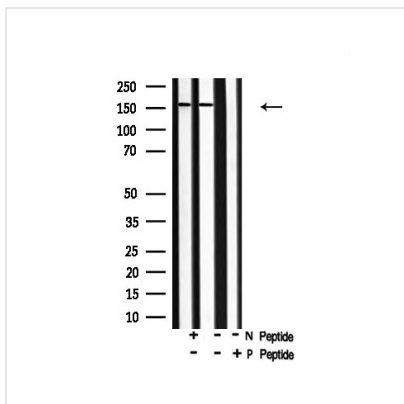
Application Data
At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

IHC (Immunohistochemistry)
At 1/200 staining Human breast 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 antibody.



IHC (Immunohistochemistry)
At 1/200 staining Mouse kidney 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 antibody.

IHC (Immunohiostchemistry)
Staining Rat kidney 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 antibody.



WB (Western Blot)
 Western blot analysis of HER2 (Phospho-Thr686) using HeLa whole cell lysates. -/+ means absence or presence of N peptide (non-phospho peptide) and P peptide (phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-HER2/ErbB2 antibody	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. In the nucleus is involved in transcriptional regulation. Associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. Implicated in transcriptional activation of CDKN1A; the function involves STAT3 and SRC. Involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	54792098
NCBI GeneID	2064
NCBI Accession #	NP_001005862.1
NCBI GenBank Nucleotide #	NM_001005862.1
UniProt Accession #	P04626; Q14256; Q6LDV1; Q9UMK4; B2RZG3; B4DHN3
Molecular Weight	137,910 Da
NCBI Official Full Name	receptor tyrosine-protein kinase erbB-2 isoform b
NCBI Official Synonym Full Names	v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
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; herstatin; p185erbB2; proto-oncogene Neu; c-erb B2/neu protein; proto-oncogene c-ErbB-2; metastatic lymph node gene 19 protein; tyrosine kinase-type cell surface receptor HER2; neuroblastoma/glioblastoma derived on
UniProt Protein Name	Receptor tyrosine-protein kinase erbB-2
UniProt Gene Name	ERBB2
UniProt Synonym Gene Names	HER2; MLN19; NEU; NGL; MLN 19
UniProt Entry Name	ERBB2_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/her2-erb2-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/329649>