Product Name: Neu (phospho Tyr1112) Rabbit Polyclonal Antibody
Catalog #: APRab05075

Summary

Production Name	Neu (phospho Tyr1112) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ERBB2
Alternative Names	ERBB2; HER2; MLN19; NEU; NGL; Receptor tyrosine-protein kinase erbB-2; Metastatic lymph node gene 19 protein; MLN 19; Proto-oncogene Neu; Proto-oncogene c-ErbB-2; Tyrosine kinase-type cell surface receptor HER2; p185erbB2; CD antigen CD340
Gene ID	2064.0
SwissProt ID	P04626.The antiserum was produced against synthesized peptide derived from human HER2 around the phosphorylation site of Tyr1112. AA range:1081-1130

Application

Dilution Ratio	WB 1:500-1:2000, ELISA 1:10000.Not yet tested in other applications.
Molecular Weight	180kDa

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Background

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 dcatalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,disease:Defects in ERBB2 are associated with familial glioma of brain [MIM:137800]; also called glioblastoma multiforme. Gliomas are central nervous system neoplasms derived from glial cells and comprise astrocytomas, glioblastoma multiforme, oligodendrogliomas, and ependymomas.,disease:Defects in ERBB2 are associated with gastric cancer [MIM:137215]; also known as hereditary familial diffuse gastric cancer (HDGC).,disease:Defects in ERBB2 are associated with lung cancer [MIM:211980]; also called adenocarcinoma of lung.,disease:Defects in ERBB2 are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,function:Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Not activated by EGF, TGF-alpha and amphiregulin.,online information:ERBB2 entry,polymorphism:There are fours alleles due to the variations in positions 654 and 655. Allele B1 (Ile-654/Ile-655) has a frequency of 0.782; allele B2 (Ile-654/Val-655) has a frequency of 0.206; allele B3 (Val-654/Val-655) has a frequency of 0.012.,PTM:Ligand-binding increases phosphorylation on tyrosine residues.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Heterodimer with each of the other ERBB receptors (Potential). Interacts with PRKCABP and PLXNB1. Part of a complex with EGFR and either PIK3C2A or PIK3C2B. May interact with PIK3C2B when phosphorylated on Tyr-1196. Interacts with MEMO when phosphorylated on Tyr-1248. Interacts with MUC1. Stimulation by heregulin (HRG) in breast cancer cell lines induces binding of MUC1 with gamma-catenin.,

Research Area

ErbB_HER;Calcium;Focal adhesion;Adherens_Junction;Pathways in cancer;Pancreatic cancer;Endometrial cancer;Prostate cancer;Bladder cancer;Non-small cell lung cancer;

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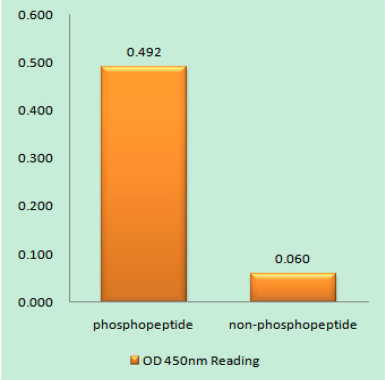
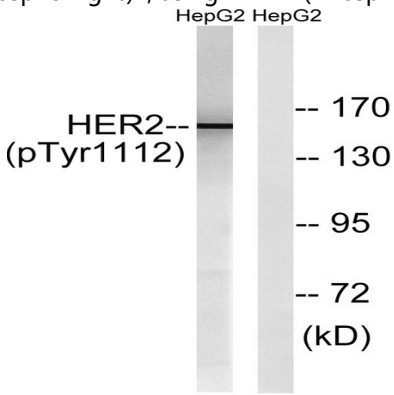
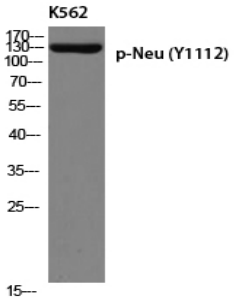
Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using HER2 (Phospho-Tyr1112) Antibody



Western blot analysis of lysates from HepG2 cells treated with PMA 125ng/ml 20 ', using HER2 (Phospho-Tyr1112) Antibody. The lane on the right is blocked with the phospho peptide.



Western blot analysis of K562 using p-Neu (Y1112) antibody. Antibody was diluted at 1:500

Note

For research use only.