

Immunotag™ Neu Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM0470
Product Description	Immunotag™ Neu Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Neu
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,FCM,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of human Neu (aa750-987) expressed in E. Coli.
Specificity	Neu Monoclonal Antibody detects endogenous levels of Neu protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	ERBB2
Accession No.	P04626 P70424
Alternate 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

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Description	erb-b2 receptor tyrosine kinase 2(ERBB2) Homo sapiens 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 d
Cell Pathway/ Category	ErbB_HER,Calcium,Focal adhesion,Adherens_Junction,Pathways in cancer,Pancreatic cancer,Endometrial cancer,Prostate cancer,Bladder cancer,Non-small cell lung cancer,
Protein Expression	Epithelium,Lung,Mammary carcinoma,Placenta,
Subcellular Localization	nucleus,cytoplasm,plasma membrane,endosome membrane,membrane,integral component of membrane,basolateral plasma membrane,apical plasma membrane,cytoplasmic vesicle,myelin sheath,receptor complex,perinuclear region
Protein Function	catalytic 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.,
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