

## **HER2 Monoclonal Antibody(11H9)**

Catalog No: YM3045

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IF;IHC

Target: HER2

**Fields:** >>EGFR tyrosine kinase inhibitor resistance;>>Endocrine

resistance;>>Platinum drug resistance;>>MAPK signaling pathway;>>ErbB

signaling pathway;>>Calcium signaling pathway;>>HIF-1 signaling pathway;>>PI3K-Akt signaling pathway;>>Focal adhesion;>>Adherens junction;>>Tight junction;>>Pathways in cancer;>>Proteoglycans in cancer;>>MicroRNAs in cancer;>>Pancreatic cancer;>>Endometrial cancer;>>Prostate cancer;>>Bladder cancer;>>Non-small cell lung

cancer;>>Breast cancer;>>Gastric cancer;>>Central carbon metabolism in

cancer

Gene Name: ERBB2

**Protein Name:** Receptor tyrosine-protein kinase erbB-2

P04626

P70424

Human Gene Id: 2064

**Human Swiss Prot** 

No:

Mouse Gene Id: 13866

**Mouse Swiss Prot** 

No:

Rat Swiss Prot No: P06494

Immunogen: Synthetic Peptide of HER2

**Specificity:** The antibody detects endogenous ErbB-2/HER-2 proteins.

**Formulation :** PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and

50% Glycerol.



**Source:** Monoclonal, Mouse

**Dilution :** WB 1:2000-4000 IHC 1:200 IF 1:200

**Purification:** The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 180kD

**Cell Pathway:** ErbB\_HER;Calcium;Focal adhesion;Adherens\_Junction;Pathways in

cancer;Pancreatic cancer;Endometrial cancer;Prostate cancer;Bladder

cancer; Non-small cell lung cancer;

**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 d

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 ERBR2 are associated with lung 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 viscera

Subcellular Location:

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Early endosome. Cytoplasm, perinuclear region. Nucleus. 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)..; [Isoform 2]: Cytoplasm. Nucleus.; [Isoform 3]:

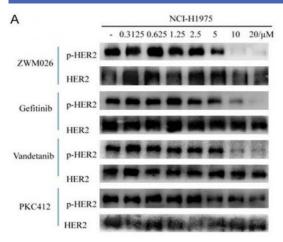


Cytoplasm. Nucleus.

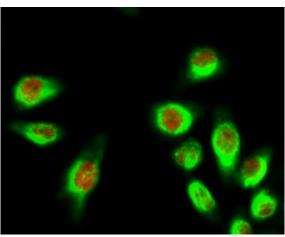
## **Expression:**

Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

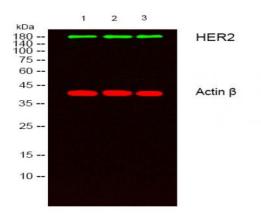
## **Products Images**



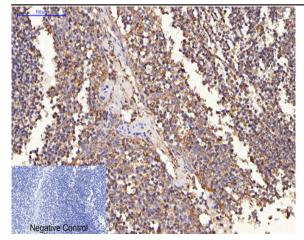
Song, Xiaoping, et al. "A novel multi-target inhibitor harboring selectivity of inhibiting egfr T790M sparing wild-type EGFR." American journal of cancer research 7.9 (2017): 1884.



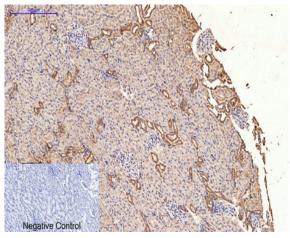
Immunofluorescence analysis of Hela cell. 1,E2F-1 Polyclonal Antibody(red) was diluted at 1:200(4° overnight). HER2 Monoclonal Antibody(11H9)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



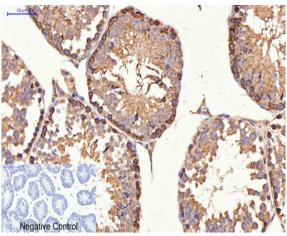
Western blot analysis of lysates from 1) Hela, 2) A431,3) MCF-7 cells, [?]Green[?] primary antibody was diluted at 1:1000, 4° over night, secondary antibody(cat:RS23910)was diluted at 1:10000, 37° 1hour. [?]Red[?] Actin  $\beta$  Polyclonal Antibody (cat:YT0099) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23720)was diluted at 1:10000, 37° 1hour.



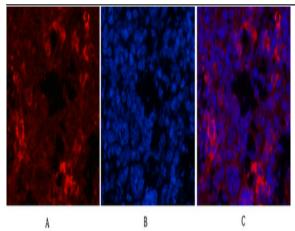
Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue. 1,HER2 Monoclonal Antibody(11H9) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



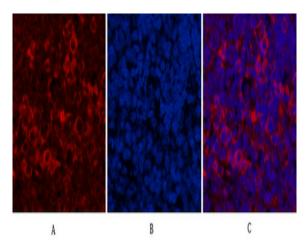
Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1,HER2 Monoclonal Antibody(11H9) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



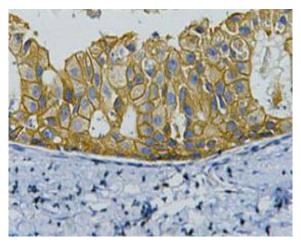
Immunohistochemical analysis of paraffin-embedded Mouse-testis tissue. 1,HER2 Monoclonal Antibody(11H9) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



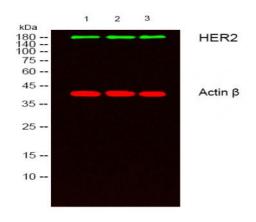
Immunofluorescence analysis of Mouse-spleen tissue. 1,HER2 Monoclonal Antibody(11H9)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Rat-spleen tissue. 1,HER2 Monoclonal Antibody(11H9)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



IHC staining of human breast cancer tissue, diluted at 1:200.



Western blot analysis of lysates from 1) Hela, 2) A431,3) MCF-7 cells, (Green) primary antibody was diluted at 1:1000, 4°over night, secondary antibody(cat:RS23910)was diluted at 1:10000, 37° 1hour. (Red) Actin  $\beta$  Polyclonal Antibody (cat:YT0099) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23720)was diluted at 1:10000, 37° 1hour.