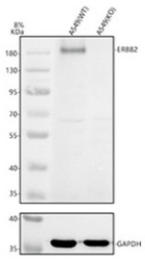
HER2 Polyclonal Antibody / ERBB2 Polyclonal Antibody (RQ7168)

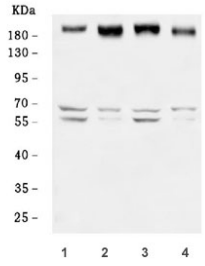
Catalog No.	Formulation	Size
RQ7168	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

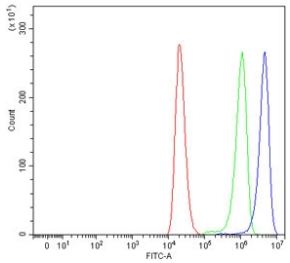
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P04626
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This HER2 Polyclonal Antibody / ERBB2 Polyclonal Antibody is available for research use only.



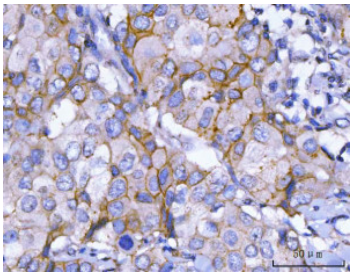
HER2 Antibody WB with ERBB2 Knockout Validation in A549 Cells. Western blot analysis of wild-type (WT) and ERBB2 knockout (KO) human A549 whole cell lysates using the ERBB2 Antibody at 0.5 ug/ml. Samples containing 30 ug of total protein per lane were separated by 8% SDS-PAGE under reducing conditions. A prominent band at approximately 185 kDa is detected in WT cells but is absent in ERBB2 KO cells, supporting target-specific detection. Although the calculated molecular weight of HER2 is approximately 138 kDa, the mature N-glycosylated receptor typically migrates near 185 kDa. GAPDH was used as a loading control and shows comparable signal in both samples.



HER2 Polyclonal Antibody WB. Western blot testing of human 1) HeLa, 2) MCF7, 3) RT4 and 4) HaCaT cell lysate with ERBB2 Polyclonal Antibody. Expected molecular weight: 139-185 kDa depending on glycosylation level.



HER2 Polyclonal Antibody 239T FACS. Flow cytometry testing of human 293T cells with HER2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= ERBB2 Polyclonal Antibody



HER2 Polyclonal Antibody Immunohistochemistry. IHC staining of FFPE human breast cancer tissue with ERBB2 Polyclonal Antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

HER2 Polyclonal Antibody / ERBB2 Polyclonal Antibody recognizes human epidermal growth factor receptor 2 (HER2), a transmembrane receptor tyrosine kinase encoded by the ERBB2 gene. Also known as CD340 or HER2/neu, this protein belongs to the epidermal growth factor receptor family, which includes EGFR, ERBB3, and ERBB4. HER2 participates in signaling pathways that regulate cellular proliferation, differentiation, survival, and tissue development. Unlike other members of the ERBB family, HER2 has no established direct ligand and instead functions as a preferred dimerization partner for other activated ERBB receptors.

HER2 contains an extracellular receptor domain, a single transmembrane segment, and an intracellular tyrosine kinase domain. Dimerization with other ERBB family members promotes receptor phosphorylation and recruitment of intracellular signaling proteins. Particularly important downstream pathways include PI3K-AKT and RAS-RAF-MEK-ERK, which coordinate cell survival, metabolism, proliferation, and responses to growth signals. HER2 forms especially potent signaling complexes with ERBB3 because ERBB3 provides multiple binding sites for PI3K regulatory subunits, despite having impaired intrinsic kinase activity.

ERBB2 amplification and HER2 protein overexpression are established oncogenic mechanisms in several malignancies, particularly breast and gastric cancers. Increased receptor abundance can promote sustained signaling, altered cell-cycle regulation, and resistance to normal growth controls. HER2 status is therefore an important molecular characteristic in cancer classification and treatment selection. HER2-directed therapies include monoclonal antibodies, antibody-drug conjugates, and tyrosine kinase inhibitors, although therapeutic responses depend on tumor biology and the mechanisms underlying treatment resistance.

HER2 is extensively modified by N-linked glycosylation, which contributes to receptor maturation, stability, and cell-surface expression. Although its calculated polypeptide molecular weight is approximately 138 kDa, the mature glycosylated receptor commonly migrates near 185 kDa during SDS-PAGE. Receptor internalization, degradation, and interactions with other signaling proteins further influence HER2 abundance and activity. NSJ Bioreagents offers this HER2 Polyclonal Antibody for investigating ERBB2 expression, receptor regulation, and the molecular mechanisms underlying HER2-associated signaling and tumor development.

For broad detection of HER2 (ErbB2) as a receptor tyrosine kinase, see our HER2 antibody.

Application Notes

Optimal dilution of the HER2 Polyclonal Antibody / ERBB2 Polyclonal Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids A980-R1230) was used as the immunogen for the HER2 Polyclonal Antibody.

Storage

After reconstitution, the HER2 Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

HER2/neu antibody, Human epidermal growth factor receptor 2 antibody, Receptor tyrosine-protein kinase erbB-2 antibody, CD340 protein antibody, Neu proto-oncogene antibody

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