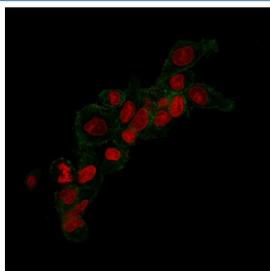


## ErbB2 Antibody / HER2 [clone HRB2/258] (V2109)

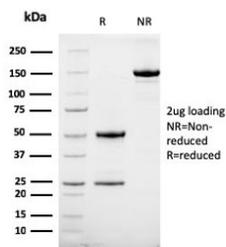
Catalog No.	Formulation	Size
V2109-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2109-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2109SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG2a, kappa
<b>Clone Name</b>	HRB2/258
<b>Purity</b>	Protein G purified
<b>Gene ID</b>	2064
<b>Localization</b>	Extracellular/Intracellular cell membrane
<b>Applications</b>	ELISA (order BSA/sodium Azide-free Format For Coating) : Flow Cytometry : 1-2ug/10 <sup>6</sup> cells Immunofluorescence : 1-3ug/ml
<b>Limitations</b>	This <b>ErbB2 antibody</b> is available for research use only.



Immunofluorescent staining of methanol-fixed human SLBR3 cells with ErbB2 antibody (clone HRB2/258, green) and Reddot nuclear stain (red).



SDS-PAGE Analysis of Purified, BSA-Free ErbB2 Antibody (clone HRB2/258).  
Confirmation of Integrity and Purity of the Antibody.

## Description

ErbB2 antibody detects Human epidermal growth factor receptor 2 (HER2), a transmembrane receptor tyrosine kinase that belongs to the EGFR/ERBB family. The UniProt recommended name is Receptor tyrosine-protein kinase erbB-2 (ERBB2). HER2 functions as a potent signaling receptor that regulates cell growth, differentiation, and survival, and its amplification or overexpression is a hallmark of several aggressive cancers, particularly breast and gastric carcinomas.

Functionally, ErbB2 antibody identifies a 185 kDa single-pass membrane glycoprotein that acts as a ligand-independent co-receptor. Lacking a direct ligand, HER2 instead forms heterodimers with other ERBB family members, especially ERBB3 and EGFR, to initiate high-intensity signaling through the MAPK and PI3K/AKT pathways. This signaling cascade promotes cell proliferation, angiogenesis, and resistance to apoptosis. HER2 also participates in receptor cross-talk with integrins and G-protein-coupled receptors, extending its influence across multiple cellular systems.

The ERBB2 gene is located on chromosome 17q12 and is normally expressed at low levels in epithelial cells of the heart, breast, and gastrointestinal tract. Under physiological conditions, HER2 contributes to normal growth and differentiation. However, gene amplification or protein overexpression leads to constitutive receptor activation, resulting in uncontrolled signaling and oncogenic transformation. Overactive HER2 is found in approximately one-quarter of breast cancers and is also implicated in ovarian, lung, and gastric malignancies.

Clinically, HER2 serves as a critical diagnostic and therapeutic target. HER2 testing via immunohistochemistry or FISH is standard practice in oncology to identify patients eligible for HER2-targeted treatments such as trastuzumab, pertuzumab, and lapatinib. Overexpression correlates with poor prognosis but increased treatment responsiveness, making HER2 both a biomarker and a therapeutic focus. Research using ErbB2 antibody supports investigations into receptor signaling mechanisms, cancer progression, and targeted therapy resistance.

ErbB2 antibody is validated for use in relevant research applications to detect HER2/ERBB2 protein expression and study receptor-mediated oncogenic signaling. NSJ Bioreagents provides ErbB2 antibody reagents optimized for research in tumor biology, receptor tyrosine kinase pathways, and targeted drug development.

## Application Notes

Variations in protocols, secondaries and substrates may require the antibody to be titered for optimal performance.

1. This ErbB2 antibody binds to the extracellular/cell surface region of the protein.

## Immunogen

Recombinant human protein was used as the immunogen for this ErbB2 antibody.(1)

## Storage

Store the ErbB2 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

p185, CD340, Verb b2 Erythroblastic Leukemia Viral Oncogene Homolog 2, ErbB2 antibody, Neuro/Glioblastoma Derived Oncogene Homolog

## References (3)