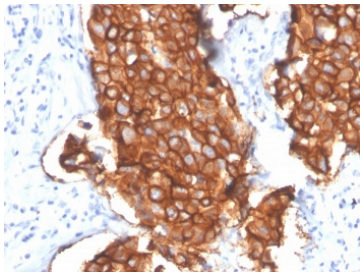
HER2 Antibody / ErbB2 / Extracellular region [clone ERBB2/4439R] (V8633)

Catalog No.	Formulation	Size
V8633-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8633-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8633SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

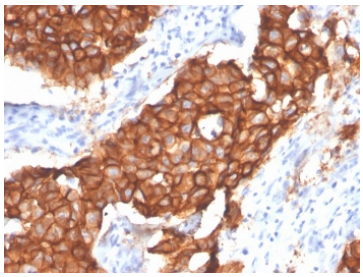
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	ERBB2/4439R
Purity	Protein A affinity chromatography
UniProt	IDP04626
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This HER2 antibody is available for research use only.



IHC staining of FFPE human breast carcinoma with HER2 antibody (clone ERBB2/4439R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



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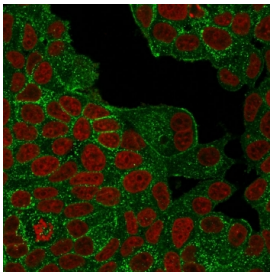
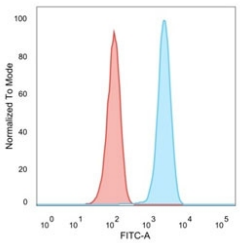
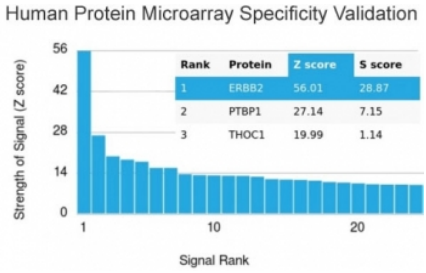


Immunofluorescent staining of PFA-fixed human MCF7 cells with HER2 antibody (clone ERBB2/4439R, green) and Phalloidin (red).



Flow cytometry testing of PFA-fixed human MCF7 cells with HER2 antibody (clone ERBB2/4439R); Red=isotype control, Blue= HER2 antibody.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using HER2 antibody. These results demonstrate the foremost specificity of the ERBB2/4439R mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

HER2 antibody detects HER2, also known as ErbB2, a receptor tyrosine kinase encoded by the ERBB2 gene. HER2 is a member of the epidermal growth factor receptor family, where it functions as a dimerization partner for other ErbB receptors. Overexpression or amplification of HER2 drives oncogenic signaling in breast, gastric, and other cancers. Because HER2 is both a diagnostic marker and therapeutic target, HER2 antibody is a central reagent in oncology and translational research.

HER2 consists of an extracellular ligand-binding region, a single transmembrane domain, and a cytoplasmic tyrosine kinase domain. Although HER2 lacks a known ligand, it heterodimerizes with other ErbB receptors to amplify downstream signaling. Activation of HER2 triggers MAPK, PI3K/AKT, and JAK/STAT pathways, supporting proliferation, survival, and angiogenesis. Its amplification is a hallmark of aggressive breast cancer, defining patients who benefit from HER2-targeted therapies.

The HER2 antibody clone ERBB2/4439R provides reproducible and specific recognition. Recombinant production ensures consistent performance across lots. Clone ERBB2/4439R has been cited in peer-reviewed publications

evaluating HER2 expression in breast and gastric cancers, supporting both diagnostic and mechanistic studies. Its versatility makes it suitable for immunohistochemistry, Western blotting, and flow cytometry.

Research using clone ERBB2/4439R has demonstrated how HER2 expression correlates with poor prognosis and therapeutic response in oncology. In translational research, HER2 detection provides the foundation for targeted therapies including monoclonal antibodies and tyrosine kinase inhibitors. This antibody has also been used in mechanistic studies to clarify how HER2 cooperates with other signaling receptors in tumor biology.

NSJ Bioreagents supplies this HER2 antibody to support oncology, signal transduction research, and therapeutic development. Alternate names include ERBB2 antibody, human epidermal growth factor receptor 2 antibody, neu oncogene protein antibody, HER2/neu receptor antibody, and receptor tyrosine kinase ErbB2 antibody.

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

Application Notes

Optimal dilution of the HER2 antibody should be determined by the researcher.

Immunogen

A recombinant protein encoding the extracellular domain of human c-erbB2 was used as the immunogen for the HER2 antibody.

Storage

Store the HER2 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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