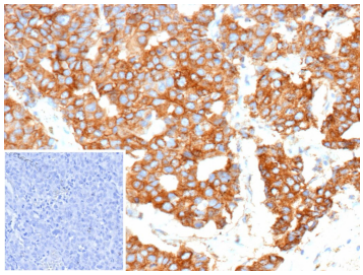
HER2 Antibody / ERBB2 [clone r5A2] (V5875)

Catalog No.	Formulation	Size
V5875-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5875-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5875SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

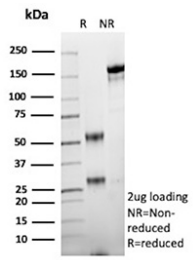
Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	r5A2
UniProt	P04626
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This HER2/ERBB2 antibody is available for research use only.



Immunohistochemistry of HER2 expression in human breast tissue. Formalin-fixed, paraffin-embedded human breast tissue stained with HER2 antibody (clone r5A2) shows predominantly cytoplasmic staining in epithelial tumor cells, with variable membrane-associated signal. Inset shows negative control with PBS substituted for the primary antibody. Tissue sections were processed using heat-induced antigen retrieval (10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95oC) prior to immunostaining and chromogenic detection.



SDS-PAGE Analysis of Purified HER2/ERBB2 antibody (clone r5A2). Confirmation of Purity and Integrity of Antibody.

Description

HER2 antibody is used to study Erb-B2 receptor tyrosine kinase 2, a membrane-associated receptor that functions as a key amplifier of growth factor signaling in epithelial cells. Erb-B2 receptor tyrosine kinase 2 is encoded by the ERBB2 gene and belongs to the epidermal growth factor receptor family. Unlike other family members, this receptor lacks a known soluble ligand and instead acts as a preferred heterodimerization partner, enhancing signaling output from receptor complexes at the cell surface.

Erb-B2 receptor tyrosine kinase 2 is widely known by several names in the literature, including HER2, ERBB2, Neu, and CD340. These designations reflect its discovery across different research contexts, ranging from oncogenic signaling studies to immunological characterization of cell surface receptors. Use of a HER2 antibody supports integration of findings across this extensive body of work, particularly in studies focused on receptor expression and membrane localization.

At the cellular level, Erb-B2 receptor tyrosine kinase 2 localizes predominantly to the plasma membrane, where it participates in the formation of receptor dimers that activate downstream pathways such as MAPK and PI3K-AKT. Through these signaling cascades, ERBB2 influences cell proliferation, survival, and differentiation. Studies using HER2 antibody have been central to defining receptor distribution, membrane organization, and signaling context in epithelial tissues and tumor-derived cell models.

Expression of ERBB2 is tightly regulated in normal tissues but is frequently increased in subsets of epithelial malignancies. Elevated ERBB2 expression has been documented in breast, gastric, and other epithelial cancers and is associated with altered receptor signaling dynamics. Detection of ERBB2 using a HER2 antibody enables research into receptor-driven signaling behavior, epithelial tumor biology, and pathway activation without implying diagnostic or therapeutic application.

HER2 antibody (clone r5A2) is designed to detect Erb-B2 receptor tyrosine kinase 2 in research applications. Analysis of ERBB2 expression provides insight into cell surface receptor distribution, receptor complex formation, and disease-associated changes in epithelial signaling pathways. Erb-B2 receptor tyrosine kinase 2 remains a central molecule for studies examining growth factor receptor networks and signal amplification mechanisms.

Application Notes

1. Optimal dilution of the ERBB2/HER2 antibody should be determined by the researcher.

2. This HER2/ERBB2 antibody is recombinantly produced by expression in CHO cells.

Immunogen

Synthetic peptide corresponding to a site on the internal domain of the c-erbB-2 oncoprotein was used as the immunogen for the HER2/ERBB2 antibody.

Storage

HER2/ERBB2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.