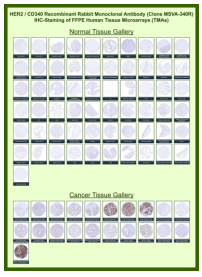
HER2 Antibody for IHC / ERBB2 Immunohistochemistry Antibody [clone MSVA-340R] (V6152)

Catalog No.	Formulation	Size
V6152-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6152-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-340R
UniProt	P04626
Localization	Cell membrane, Cytoplasm, Early endosome, Nucleus, Perinuclear region
Applications	Immunohistochemistry (FFPE) : 1:50-1:200
Limitations	This HER2 Antibody for IHC / ERBB2 Immunohistochemistry Antibody is available for research use only.



HER2 Antibody for IHC Tissue Microarray (TMA) Multi-Tissue Expression Analysis. Immunohistochemistry analysis of Receptor tyrosine-protein kinase erbB-2 (ERBB2) expression in FFPE human tissue microarray (TMA) sections using HER2 Antibody for IHC clone MSVA-340R demonstrates minimal to absent HRP-DAB brown staining across the majority of normal tissues, with only weak membranous signal in select epithelial compartments. In contrast, cancer tissue microarrays show variable to strong membranous staining in subsets of epithelial tumors, most prominently in breast and gastric carcinoma cores, consistent with HER2 overexpression in these malignancies. The staining pattern highlights clear contrast between HER2-positive tumor cells and largely negative surrounding tissues, supporting its use as a tumor-associated membrane marker in IHC-based analysis. Heat-induced epitope retrieval was performed prior to staining to ensure optimal antigen detection in FFPE sections.

Description

Receptor tyrosine-protein kinase erbB-2 (ERBB2), commonly known as HER2, is a transmembrane receptor tyrosine

kinase of the EGFR family that plays a central role in epithelial cell signaling, proliferation, and survival. HER2 Antibody for IHC is widely used to assess HER2 protein expression in formalin-fixed, paraffin-embedded tissues, where its membranous localization and expression intensity provide critical information for tumor classification. In immunohistochemistry, HER2 staining is characterized by distinct membranous patterns that reflect receptor overexpression, making it one of the most clinically relevant epithelial biomarkers in pathology. In normal tissues, HER2 expression is typically low, with minimal or weak membranous staining confined to select epithelial compartments.

HER2 antibody, also referred to as ERBB2 antibody or HER2/neu antibody in the literature, recognizes a receptor that is frequently overexpressed in epithelial malignancies. This HER2 Antibody for IHC is specifically optimized for Tissue Microarray (TMA)-based immunohistochemistry, enabling high-throughput evaluation of HER2 expression across large panels of normal and cancer tissues. In normal tissue TMAs, staining is largely absent or weak, providing a clean background that enhances contrast when evaluating tumor samples. In cancer tissue microarrays, strong and specific membranous HRP-DAB brown staining is observed in HER2-positive tumors, particularly in breast carcinoma, where HER2 overexpression is a defining molecular feature.

Tissue Microarray (TMA) analysis highlights the characteristic staining patterns of HER2 in tumor samples, including strong, circumferential membrane staining in HER2-positive breast cancers and variable membranous expression in gastric and other epithelial malignancies. HER2 Antibody for IHC enables clear differentiation between HER2-positive and HER2-negative tumors, supporting stratification of tumor subtypes based on receptor expression. The ability to assess staining intensity and membrane completeness across hundreds of cores within a single TMA slide allows consistent comparison of expression patterns, making this approach highly valuable for large-scale immunohistochemistry studies.

The use of TMA-based IHC further demonstrates the specificity of clone MSVA-340R, with strong tumor-associated membranous staining observed alongside minimal background in non-epithelial and stromal tissues. This contrast enhances interpretability and supports accurate identification of HER2-expressing tumor cells within complex tissue environments. The reproducibility of staining across diverse TMA panels aligns with established HER2 expression data, including profiles reported in the Human Protein Atlas, reinforcing confidence in the antibodyâ€™s performance in FFPE tissue analysis.

This antibody targets HER2 in research applications requiring precise immunohistochemical detection of membranous receptor expression in FFPE tissue sections, making it well suited for studies of tumor classification, epithelial differentiation, and receptor-driven signaling in cancer biology.

This antibody is part of the HER2 antibody collection, where additional ERBB2 antibodies for immunohistochemistry can be explored.

Application Notes

1. Optimal dilution of the HER2 Antibody for IHC / ERBB2 Immunohistochemistry Antibody should be determined by the researcher.

2. This HER2/Erb-B2 receptor tyrosine kinase 2 antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant protein encoding the extracellular domain of human c-erbB2 was used as the immunogen for the HER2/ERBB2 receptor tyrosine kinase 2 antibody.

Storage

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

Alternate Names

ERBB2 antibody, HER2 IHC antibody, HER2/neu antibody, ERBB2 immunohistochemistry antibody, HER2 tumor marker antibody