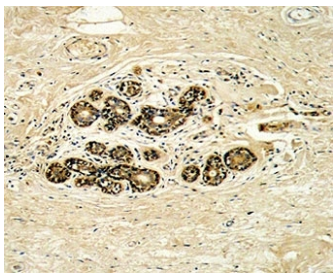
HER3 Antibody / ERBB3 Tumor Signaling Antibody (F50603)

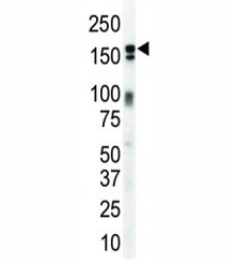
Catalog No.	Formulation	Size
F50603-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50603-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

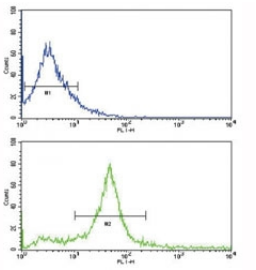
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P21860
Applications	Western Blot : 1:1000 IHC (Paraffin) : 1:10-1:50 Flow Cytometry : 1:10-1:50
Limitations	This HER3 Antibody / ERBB3 Tumor Signaling Antibody is available for research use only.



HER3 Antibody Breast Carcinoma Tissue IHC. Immunohistochemistry analysis of FFPE human breast carcinoma stained with HER3 Antibody / ERBB3 Tumor Signaling Antibody demonstrates moderate to strong HRP-DAB brown membranous and cytoplasmic staining in tumor epithelial cells, consistent with ERBB3 expression, while surrounding stromal cells show minimal background; nuclei are counterstained blue.



HER3 Antibody Mouse Brain WB. Western blot analysis of mouse brain lysate using HER3 Antibody / ERBB3 Tumor Signaling Antibody detects a band at approximately 150â€“180 kDa, consistent with the predicted molecular weight of HER3 / ERBB3, which may appear as a broad band due to glycosylation.



HER3 Antibody 293 Cells FACS. Flow cytometry analysis of human HEK293 cells stained with HER3 Antibody / ERBB3 Tumor Signaling Antibody demonstrates a rightward shift in fluorescence intensity (bottom histogram) compared to the negative control (top histogram), indicating cell surface expression of HER3 / ERBB3; FITC-conjugated goat anti-rabbit secondary antibody was used for detection.

Description

Receptor tyrosine-protein kinase erbB-3 (ERBB3), commonly known as HER3, is a member of the epidermal growth factor receptor family that regulates cell proliferation, survival, and differentiation. HER3 antibody, also referred to as ERBB3 antibody and erbB-3 receptor antibody in the literature, recognizes a transmembrane receptor expressed in epithelial tissues and frequently dysregulated in cancer.

HER3 is unique among ERBB family members in that it has limited intrinsic kinase activity and relies on heterodimerization with other receptors, particularly HER2, to initiate downstream signaling. HER2 is a member of the ERBB receptor family and plays a central role in receptor signaling; see our HER2 antibody page for detection of ERBB2 expression. Through these interactions, HER3 contributes to activation of pathways such as PI3K-AKT and MAPK, which regulate cell growth, survival, and tumor progression.

HER3 expression is typically low in normal tissues, where it is restricted to select epithelial compartments and exhibits controlled membranous localization. In contrast, tumor cells often demonstrate increased HER3 expression and altered distribution, contributing to enhanced signaling activity and aggressive disease phenotypes. HER3 is frequently studied in epithelial-derived cancers such as breast, gastric, and lung carcinomas, where it plays a role in tumor progression and therapeutic resistance.

In tissue-based analysis, HER3 is primarily localized to the cell membrane, with additional cytoplasmic staining observed depending on cellular context and receptor trafficking. This pattern supports its role as a receptor involved in signal transduction at the cell surface. HER3 antibodies are widely used in immunohistochemistry to evaluate receptor expression and distribution in formalin-fixed, paraffin-embedded tissues.

Beyond tissue-based applications, HER3 antibodies are also used in immunodetection assays such as western blot and flow cytometry to assess protein expression levels and receptor presence on the cell surface. These complementary approaches support both qualitative and quantitative analysis of HER3 across different experimental systems.

HER3 functions within a broader ERBB signaling network that includes receptors such as EGFR, HER2, and ERBB4. Coordinated signaling between these receptors regulates downstream pathway activation and cellular responses. Detection of HER3 expression provides insight into receptor availability and signaling potential within this network.

For analysis of activated HER3 signaling, see our phospho-HER3 (pY1289) antibody.

Application Notes

Titration of the HER3 Antibody / ERBB3 Tumor Signaling Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 24-55 from the human protein was used as the immunogen for this HER3 antibody.

Storage

Aliquot the HER3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HER3 antibody, ERBB3 antibody, Receptor tyrosine-protein kinase erbB-3 antibody, HER3 receptor antibody