

## 36-2237: Anti-HER-4 / ERBB4 Monoclonal Antibody(Clone: ERBB4/2581)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	ERBB4/2581
<b>Application :</b>	IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	ERBB4
<b>Gene ID :</b>	2066
<b>Uniprot ID :</b>	Q15303
<b>Alternative Name :</b>	Avian erythroblastic leukemia viral oncogene homolog 4; HER4; human epidermal growth factor receptor 4; p180erbB4; Proto-oncogene-like protein c-ErbB-4
<b>Isotype :</b>	Mouse IgG1, kappa
<b>Immunogen Information :</b>	Recombinant fragment (around aa 1116-1269) of human ERBB4 (HER4) protein (exact sequence is proprietary)

### Description

The EGF receptor family comprises several related receptor tyrosine kinases that are frequently overexpressed in a variety of carcinomas. Members of this receptor family include EGFR (HER1), Neu (ErbB-2, HER2), ErbB-3 (HER3) and ErbB-4 (HER4), which form either homodimers or heterodimers upon ligand binding. The gene encoding ErbB-4 is expressed as a full-length protein, which produces a short membrane-anchored cytoplasmic domain fragment and a long ectodomain fragment. The short fragment is heavily tyrosine phosphorylated and possesses tyrosine kinase catalytic activity toward an exogenous substrate. Proteolytic cleavage of ErbB-4 is promoted by the binding of heregulin. ErbB-4 is involved in cell proliferation and differentiation and its expression is highest in breast carcinoma cell lines, normal skeletal muscle, heart, pituitary, brain and cerebellum. Its expression in breast cancer, pediatric brain cancer and other types of carcinomas has been reported in studies which suggest ErbB4 expression is involved in both normal tissue development and carcinogenesis.

### Product Info

<b>Amount :</b>	20 µg / 100 µg
<b>Content :</b>	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

### Application Note

Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes)

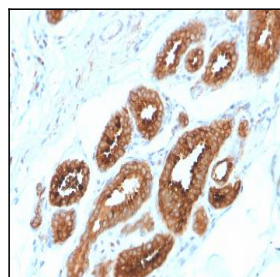


Fig. 1: Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with HER-4 / ERBB4 Mouse Monoclonal Antibody (ERBB4/2581).

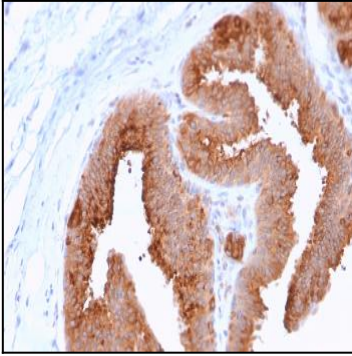


Fig. 2: Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with HER-4 / ERBB4 Mouse Monoclonal Antibody (ERBB4/2581).

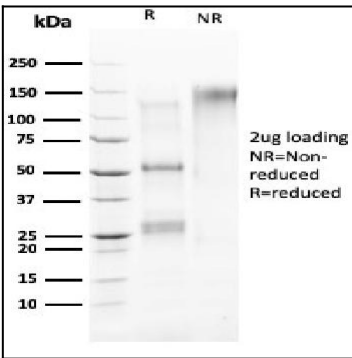


Fig. 3: SDS-PAGE Analysis Purified HER-4 / ERBB4 Mouse Monoclonal Antibody (ERBB4/2581). Confirmation of Purity and Integrity of Antibody.

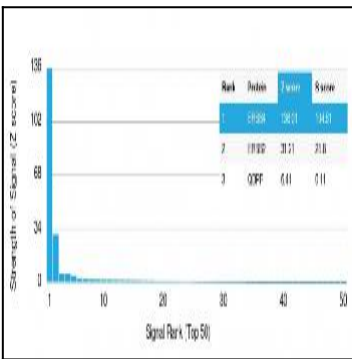


Fig. 4: Analysis of Protein Array containing more than 19,000 full-length human proteins using HER-4 Mouse Monoclonal Antibody (ERBB4/2581). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.