

Anti-HER2 / ErbB2 Antibody

ER0106



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 138 kDa

Description: HER2 is a member of the human epidermal growth factor receptor (HER/EGFR/ERBB) family. Amplification or overexpression of this oncogene has been shown to play an important role in the development and progression of certain aggressive types of breast cancer. In recent years the protein has become an important biomarker and target of therapy for approx. 30% of breast cancer patients. Over-expression is also known to occur in ovarian, stomach, and aggressive forms of uterine cancer, such as uterine serous endometrial carcinoma. The expression of HER2 is regulated by signaling through estrogen receptors. Normally, estradiol and tamoxifen acting through the estrogen receptor down-regulate the expression of HER2. However, when the ratio of the coactivator AIB-3 exceeds that of the corepressor PAX2, the expression of HER2 is upregulated in the presence of tamoxifen, leading to tamoxifen-resistant breast cancer.

Immunogen: Synthetic peptide within Human HER2 aa 1-50 / 1,255.

Positive control: SK-Br-3 cell lysate, SKOV-3 cell lysate, SKOV-3, human stomach carcinoma tissue, human breast carcinoma tissue, human placenta tissue.

Subcellular location: Cell membrane.

Database links: SwissProt: P04626 Human

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:50-1:100
IHC-P	1:50-1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Images

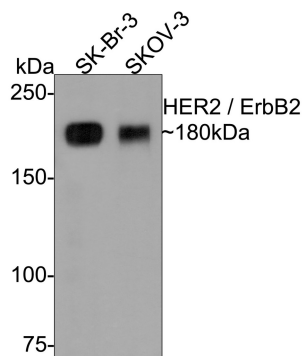


Fig1: Western blot analysis of HER2 / ErbB2 on different lysates with Rabbit anti-HER2 / ErbB2 antibody (ER0106) at 1/1,000 dilution.

Lane 1: SK-Br-3 cell lysate

Lane 2: SKOV-3 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 138 kDa

Observed band size: 180 kDa

Exposure time: 2 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER0106) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

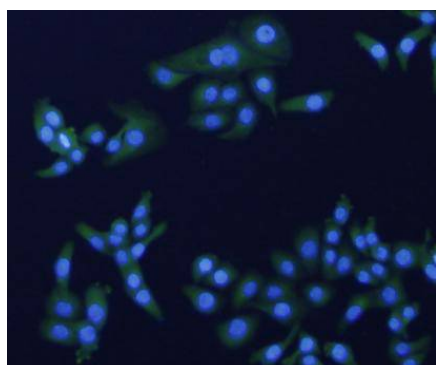


Fig2: ICC staining of HER2 / ErbB2 in SKOV-3 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ER0106, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

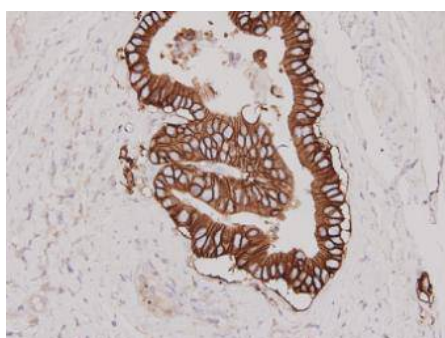


Fig3: Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue using anti-HER2 / ErbB2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ER0106, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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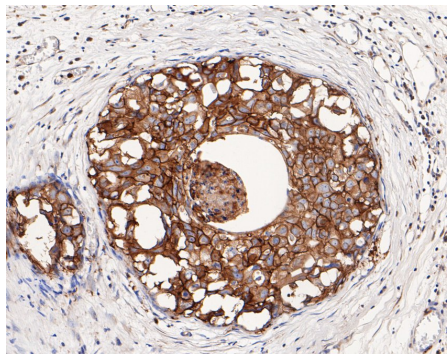


Fig4: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-HER2 / ErbB2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ER0106, 1/200) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

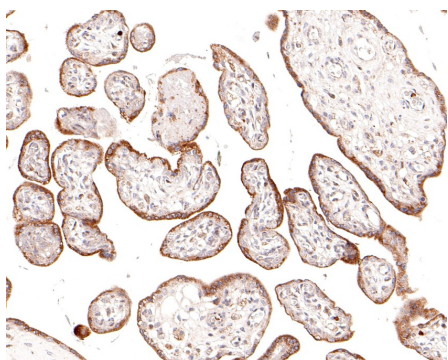


Fig5: Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-HER2 / ErbB2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ER0106, 1/1,000) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "Endosomal transport of ErbB-2: mechanism for nuclear entry of the cell surface receptor." Giri D.K., Ali-Seyed M., Li L.Y., Lee D.F., Ling P., Bartholomeusz G., Wang S.C., Hung M.C. *Mol. Cell. Biol.* 25:11005-11018(2005)
2. "Brk is coamplified with ErbB2 to promote proliferation in breast cancer." Xiang B., Chatti K., Qiu H., Lakshmi B., Krasnitz A., Hicks J., Yu M., Miller W.T., Muthuswamy S.K. *Proc. Natl. Acad. Sci. U.S.A.* 105:12463-12468(2008)
3. "ErbB2-mediated Src and signal transducer and activator of transcription 3 activation leads to transcriptional up-regulation of p21Cip1 and chemoresistance in breast cancer cells." Hawthorne V.S., Huang W.C., Neal C.L., Tseng L.M., Hung M.C., Yu D. *Mol. Cancer Res.* 7:592-600(2009)

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