HER2 / ErbB2 Recombinant Antibody [PD00-53] - Rat IgG1 (Chimeric)

HA601683

Product Type:	Recombinant Chimeric, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 138 kDa
Clone number:	PD00-53

Description: HER-2 (also called HER-2/neu, c-erbB2, ERBB2 or neu) is a transmembrane receptor tyrosine kinase. HER-2 is a proto-oncogene, i.e. its activation causes malignant transformation and increases the malignant potential (cell proliferation, invasiveness etc.) of the cells. Amplification of HER-2 gene invariably leads to over-expression of its protein product. The magnitude of over- expression is usually 10-100 folds or even more. Over-expressed HER-2 protein disturbs the HER-receptor family signalling networks, i.e. signalling mediated via EGFR receptor, HER-3 and HER-4. In tumours, HER-2 is over-expressed in 15-25% of primary breast cancers. Metastases usually have the same amplification status as the primary tumours. HER-2 amplification and over-expression are typical features of hormone receptor negative, rapidly growing histologic grade 2-3 tumours. Of the histologic types, Paget's disease is almost invariably HER-2 positive, whereas only a small minority of lobular and tubular carcinomas shows HER-2 amplification. HER-2 amplification and over-expression can also be found in intestinal type gastric and gastroesophageal carcinomas, ovarian carcinomas, high grade endometrial carcinomas and some salivary duct tumours. Low-level copy number increases have been found also in rare cases of lung tumours. Because of its central importance in breast cancer therapy selection, standardization of HER-2 IHC assays and slide interpretation are of outmost clinical and economical importance.

Immunogen:	Recombinant protein within Human ErbB2/ HER2 aa 500-650.
Positive control:	SK-Br-3 (Human breast cancer cell) cell lysates, Human Breast cancer.
Subcellular location:	Cell membrane, Nucleus, Cytoplasm.
Database links:	SwissProt: P04626 Human
Recommended Dilutions:	
WB	1:5,000
IHC-P	1:500
Storage Buffer:	1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

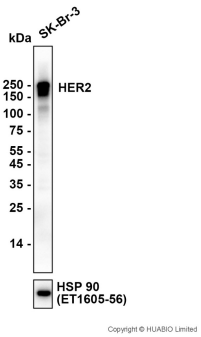


Fig1: Western blot analysis of HER2 / ErbB2 on SK-Br-3 (Human breast cancer cell) cell lysate with Rat anti-HER2 / ErbB2 antibody (HA601683) at 1/5,000 dilution.

Lysates/proteins at 15 µg/Lane.
Exposure time: 24 seconds ; ECL: K1802

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: HA601683, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C
Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 135 kDa
Observed band size: 250 kDa

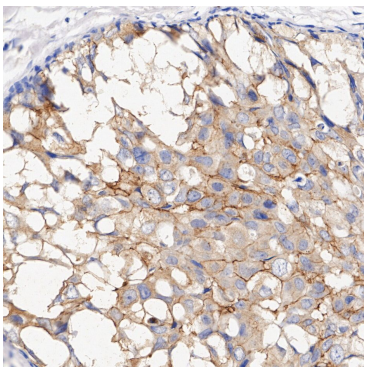


Fig2: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Breast cancer
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601683, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 20 minutes at room temperature.

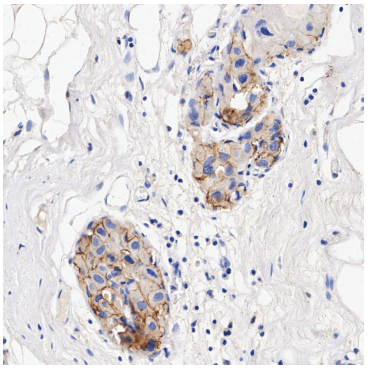


Fig3: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Breast cancer
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601683, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 20 minutes at room temperature.

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

Background References

1. Ellis CM, Dyson MJ, Stephenson TJ, Maltby EL. HER2 amplification status in breast cancer: a comparison between immunohistochemical staining and fluorescence in situ hybridisation using manual and automated quantitative image analysis scoring techniques. J Clin Pathol. 2005 Jul;58(7):710-4.
2. Gancberg D, Jarvinen T, di Leo A, Rouas G, Cardoso F, Paesmans M, Verhest A, Piccart MJ, Isola J, Larsimont D. Evaluation of HER-2/NEU protein expression in breast cancer by immunohistochemistry: an interlaboratory study assessing the reproducibility of HER-2/NEU testing. Breast Cancer Res Treat. 2002 Jul;74(2):113-20.