

BACKGROUND

ErbB2 (also called HER2, Neu, and CD340) is a member of the ErbB protein family, more commonly known as the epidermal growth factor receptor family. It is a cell membrane surface-bound receptor tyrosine kinase and is normally involved in the signal transduction pathways leading to cell growth and differentiation. HER2 is thought to be an orphan receptor, with none of the EGF family of ligands able to activate it. However, ErbB receptors dimerise on ligand binding, and ErbB2 is the preferential dimerisation partner of other members of the ErbB family.^{1,2} ErbB2 is notable for its role in the pathogenesis of breast cancer and as a target of treatment. Approximately 15-20 percent of breast cancers have an amplification of the ErbB2 gene or overexpression of its protein product. It is important as the target of the monoclonal antibody trastuzumab (marketed as Herceptin). Trastuzumab is only effective in breast cancer where the ErbB2 receptor is overexpressed.³

References:

1. Revillion, F. et al: Eur. J. Cancer 34:791, 1998
2. Hynes, N. E & Lane, H. A.: Nat Rev Cancer. 5:341, 2005.
3. Olayioye, M. A.: Breast Cancer Res 3:385, 2001

TECHNICAL INFORMATION

Source:

ErbB2/HER2 Antibody is a mouse monoclonal antibody raised against purified recombinant human ErbB2 fragments expressed in *E. coli*.

Specificity and Sensitivity:

This antibody detects endogenous ErbB2/HER2 proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

Storage:

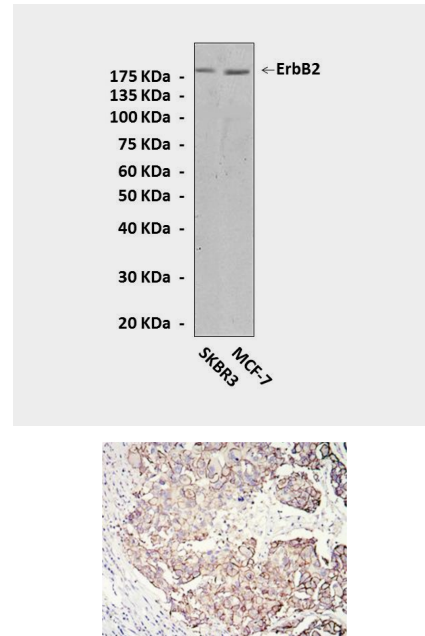
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	1:200
ICC	n/d
FACS	n/d

*Optimal dilutions must be determined by end user.

QUALITY CONTROL DATA



Top: Western Blot detection of ErbB2 proteins in SKBR3 and MCF-7 cell lysate using ErbB2 Antibody.
Bottom: This antibody stains paraffin-embedded human breast cancer tissue in immunohistochemical analysis.

