

erbB-2 Antibody

erbB-2: v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, NEU, NGL, HER2, HER-2, TKR1, CD340

CATALOG No.: 5153

BACKGROUND:

The ErbB family consists of four closely related tyrosine kinase receptors that act as potent mediators of normal cell growth and development. Aberrant expression or function of one or more of these receptors can play a major role in the development and evolution of cancer (reviewed in 1). ErbB-2, also known as HER2, has been implicated in the evolution of both breast and gastric cancers, and is evident in other cancer types such as ovarian and salivary gland tumors (2,3). ErbB-2 possesses an active tyrosine kinase domain, but no direct ligand has been identified yet (1). ErbB-2 is the preferred binding partner to the other members of the ErbB family and is thought to act primarily through the Ras-MAPK, PI3k-PKB/Akt, and PLC-PKC signaling pathways (4). Numerous anti-cancer strategies have been employed against erbB-2, such as antibody-based therapies to prevent ligand binding or receptor activation through dimerization, antibody-dependent cell mediated cytotoxicity, in addition to direct kinase inhibition to prevent molecular activation/downstream signaling (1).

SOURCE:

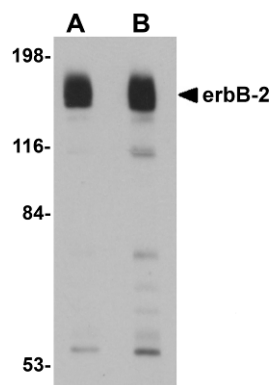
Chicken polyclonal erbB-2 antibody was raised against a 19 amino acid peptide near the carboxy terminus of human erbB-2 (GenBank accession no. NP_004439).

ERBB-2LICATION:

erbB-2 antibody can be used for detection of erbB-2 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) Rat liver tissue lysate can be used as positive control. erbB-2 antibody is human, mouse and rat reactive. **For research use only.**

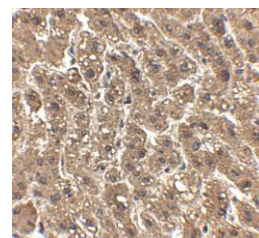
STORAGE:

erbB-2 antibody is supplied as immunoaffinity purified IgY in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of erbB-2 in rat liver tissue lysate with erbB-2 antibody at (A) 1 and (B) 2 µg/ml.

Immunohistochemistry of erbB-2 in human liver tissue with erbB-2 antibody at 2.5 µg/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **5153P**.
Rat Liver Tissue Lysate, Catalog No. **1464**.
Akt1 Antibody, Catalog No. **3519**.

REFERENCES:

- Baselga J and Swain SM. Novel anticancer targets: revisiting ERBB2 and discovering ERBB3. *Nature Rev.* 2009; 9:463-475.
- Slamon DJ, Clark GM, Wong SG, et al. Human breast cancer: correlation of relapse and survival with amplification of the HER-2/neu oncogene. *Science* 1987; 235:177-82.
- Vermeij J, Teugels E, Bourgain C, et al. Genomic activation of the EGFR and HER2-neu genes in a significant proportion of invasive epithelial ovarian cancers. *BMC Cancer* 2008; 8:3.
- Marmor MD, Skaria KB, and Yarden Y. Signal transduction and oncogenesis by ErbB/HER receptors. *Int. J. Rad. Oncol. Biol. Phys.* 2004; 58:903-13. (09-01D)