

**c-erbB-2 / HER-2 / neu Ab-20 (L87 + 2ERB19)****Mouse Monoclonal Antibody****Cat. #MS-1350-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Purified Ab with BSA and Azide)**Cat. #MS-1350-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-1350-PCL (0.1ml)** (Positive Control for Western Blot)

**Description:** c-erbB-2 is a receptor tyrosine kinase of the c-erbB family. Approximately 25% of primary breast and ovarian tumors were found to overexpress the protein

**Comments:** AB-20 is particularly designed for sensitive detection of c-erbB-2 by Western blotting.

**Mol. Wt. of Antigen:** 185kDa

**Epitope:** Extracellular domain

**Species Reactivity:** Human. Others-not tested

**Clone Designation:** L87 + 2ERB19

**Ig Isotype:** IgG<sub>1</sub> (L87); IgG<sub>1</sub> (2ERB19)

**Immunogen:** Extracellular domain of recombinant human c-erbB-2 oncoprotein.

**Applications and Suggested Dilutions:**

- Western Blotting (Extracellular)  
(Use Ab at 0.5-1.0µg/ml for 2hrs at RT)

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** SKBR-3 cells.

**Cellular Localization:** Cell membrane

**Supplied As:**

200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

**Storage and Stability:** Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Suggested References:**

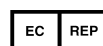
1. Tandon, A. K., et al. (1989). J Clin Oncol 7:1120-8.
2. Slamon, D. J., et al. (1989) Science 244:707-12.

**Limitations and Warranty:**

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

**For Research Use Only**

## **c-erbB-2 / HER-2 / neu Ab-20 (L87 + 2ERB19)**

### Mouse Monoclonal Antibody

Cat. #MS-1350-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-1350-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-1350-PCL (0.1ml) (Positive Control for Western Blot)

### **Additional Suggested References:**

- Hynes, N.E., Stern, D.F. 1994. The biology of erbB-2/neu/HER-2 and its role in cancer. *Biochim. Biophys. Acta* 1198:165-84
- Peles, E., and Yarden., Y. 1993. Neu and its ligands: from an oncogene to neural factors. *Bioessays* 15:815-24.
- Lupu, R., Cardillo, M., Harris, L., Hijazi, M., and Rosenberg, K. 1995. Interaction between erbB-receptors and heregulin in breast cancer tumor progression and drug resistance. *seminars in Cancer Biology*, 6 : 135-145.
- Dougall, W.C., Qian, X., Peterson, N.C., Miller, M.J., Samanta, A., and Greene, M.I. 1994. The neu-oncogene: signal transduction pathways, transformation mechanisms and evolving therapies. *Oncogene* 9 : 2109-2123.
- Sliwkowski, M. X., Schaefer, G., Akita, R.W., Lofgren, J.A., Fitzpatrick, V. D., Nuijens, A., Fendly, B. M., Cerione, R. A., Vandlen, R. L., and Carraway. K. L. 1994. Coexpression of erbB2 and erbB3 proteins reconstitutes a high affinity receptor for heregulin. *J Biol Chem* 269:14661-5.
- Wallasch, C., Weiss, F.U., Niederfellner, G., Jallal, B., Issing, W., and Ullrich, A. 1995. Heregulin-dependent regulation of HER2/neu oncogenic signaling by heterodimerization with HER3. *EMBO J.* 14 : 4267-4275.
- Earp, H.S., Dawson, T.L., Li, X., and Yu, H. 1995. Heterodimerization and functional interaction between EGF receptor family members: A new signaling paradigm with implications for breast cancer research. *Breast Cancer Research and Treatment* 35 : 115-132.
- Devarajan Karunakaran, Eldad Tzahar, Roger R. Beerli, Xiaomei Chen, Diana Graus-Porta, Ratzkin, B., Rony Seger, Nancy E. Hynes and Yosef Yarden. (1996) ErbB-2 is a common auxiliary subunit of NDF- and EGF-receptors: implications for breast cancer. *EMBO. J.* 15 : 254-264.
- Stern, D.F. and Kamps, M.P. 1988. EGF-stimulated tyrosine phosphorylation of p185 neu : a potential model for receptor interactions. *EMBO J.* 7 : 995-1001.
- Lutrell, D.K., Lee, A., Lansing, T.J., Crosby, R.M., Jung, K.D., Willard, D., Luther, M., Rodriguez, M., Berman, J., and Gilmer, T.M. 1994. Involvement of pp60c-src with two major signaling pathways in human breast cancer. *Proc. Natl. Acad. Sci. USA* 91 : 83-87.
- Peles, E., Lamprecht, R., Ben-Levy, R., Tzahar, E. and Yarden Y.1992. Regulated coupling of the Neu receptor to phosphatidylinositol 3'-kinase and its release by oncogenic activation. *J Biol Chem.* 267:12266-74.
- Vogel, W., Lammers, R., Huang, J. and Ullrich, A. 1993. Activation of a tyrosine phosphatase by tyrosine phosphorylation. *Science* 259 :1611-1614.
- Segatto, O., Pelicci, G., Giuli, S., Digiesi, G., Di Fiore, P.P., McGlade, J., Pawson, T., and Pelicci, P.G. 1993. Shc products are substrates of erbB-2 kinase. *Oncogene* 8 : 2105-2112.
- Stein, D., Wu, J., Fuqua, S.A., Roonprapunt, C., Yajnik, V., D'Eustachio, P., Moskow, J.J., Buchberg, A.M., Osborne, C.K., and Margolis, B. 1994. The SH2 domain protein GRB-7 is co-amplified, overexpressed and in a tight complex with HER2 in breast cancer. *EMBO J.* 7 : 995-1001.
- Fazioli, F., Kim, H. U., Rhee, S.G., Molloy, C.J., Segatto, O., and DiFiore, P.P. 1991. The erbB-2 mitogenic signaling pathway: tyrosine phosphorylation of phospholipase C-g and GTPase-activating protein does not correlate with erbB-2 mitogenic potency. *Mol. Cell Biol.*, 11: 2040-2048.
- Rajkumar, T. and Gullick, W. J. The type I growth factor receptors in human breast cancer 1994. *Breast Cancer Res Treat.* 29 : 3-9.
- Allred DC, Clark GM, Tandon AK, et al. HER-2/neu in node-negative breast cancer: prognostic significance of overexpression is influenced by presence of *in situ* carcinoma. *J Clin Oncol* 10: 599-605, 1992.

