



c-erbB-2 / HER-2 / neu Ab-8 (Clone e2-4001)

Mouse Monoclonal Antibody

Cat. #DLN-08961, DLN-08962, or DLN-08960 (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #DLN-08963 or DLN-08964 (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #DLN-08958, DLN-08959, or DLN-08957 (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Description: c-erbB-2 is a receptor tyrosine kinase. It exhibits extracellular domains with two cysteine-rich sequences, and a cytoplasmic tyrosine kinase domain flanked by large hydrophilic tails that carry several tyrosine autophosphorylation sites. Approximately 25% of primary breast and ovarian tumors were found to overexpress the protein. The c-erbB-2 protein is overexpressed in a variety of carcinomas especially those of breast and ovary.

Mol. Wt. of Antigen: 185kDa

Epitope: Cytoplasmic domain

Species Reactivity: Human, Mouse and Rat. Others-not tested.

Clone Designation: e2-4001

Ig Isotype: IgG₁

Immunogen: Cytoplasmic domain of recombinant human c-erbB-2/HER-2 oncoprotein.

Applications and Working Dilutions:

- Immunoprecipitation (Native and Denatured)
(Use Protein G) (Ab at 2µg/mg protein lysate)
- Western Blotting (Ab-17 is better)
(Ab 1-2µg/ml for 2h at RT)
- Immunohistology(Formalin/paraffin) (Ab-17 is better)
(Ab 2-4µg/ml for 30 min at RT)
- * [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.]

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

Positive Control: SKBR-3 or T47D cells, or breast carcinoma.

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.



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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. Dianova 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

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Additional Suggested References:

1. 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
2. Peles, E., and Yarden., Y. 1993. Neu and its ligands: from an oncogene to neural factors. *Bioessays* 15:815-24.
3. 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.
4. 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.
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6. 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.
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11. 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.
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14. 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.
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17. Allred DC, Clark GM, Tandon AK, et al. HER-2/neu in node-negative breast cancer: prognostic significance of overexpression in influenced by presence of *in situ* carcinoma. *J Clin Oncol* 10: 599-605, 1992.

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