

c-erbB-2 / HER-2 / neu (Phospho-specific) Ab-18 (Clone PN2A)
Mouse Monoclonal Antibody

Cat. #MS-1072-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-1072-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-1072-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Description: c-erbB-2 (HER-2/neu) is a 185 kDa receptor tyrosine kinase belonging to the epidermal growth factor receptor family, which also includes EGFR (HER-1), c-erbB-3 (HER-3), and c-erbB-4 (HER-4).¹² Amplification of the HER-2 gene with overexpression of the protein occurs in 20-30% of breast cancers,^{5,8,13} and tumor progression in mammary cancer is associated with elevated levels of tyrosine-phosphorylated neu and erbB-3.¹⁴ Tyr¹²⁴⁸ is the phosphorylation site that is most tightly linked to oncogenic transformation and coupling to the ras/MAP kinase signaling pathway.³ Cases of invasive breast carcinoma with the phosphorylated receptor have displayed aggressive clinicopathological features and adverse prognoses. Activation of HER-2 is frequent in ductal carcinoma *in situ* suggesting that HER-2 signaling plays a critical role in the early stages of breast tumorigenesis.⁸

Comments: Ab-18 is highly specific to the activated, tyrosine-phosphorylated (pTyr¹²⁴⁸) form of c-erbB-2 and does not cross react with closely related receptors such as EGFR, HER-3, or HER-4.¹

Mol. Wt. of Antigen: 185kDa

Epitope: aa1242-1255 with pTyr¹²⁴⁸

Species Reactivity: Human and Rat. Others not tested.

Clone Designation: PN2A

Ig Isotype: IgG₁

Immunogen: Tyrosine-phosphorylated synthetic peptide corresponding to aa1242-1255 [Lys-TAENPE-pY-LGLDVPV] from the C-terminus of human c-erbB-2 protein (P-Tyr1248).

Applications and Suggested Dilutions:

- Flow Cytometry (Not verified)
- Immunofluorescence^{1,4,10}
- Immunoprecipitation (Not verified)
- Western Blotting^{1,9}
- Immunohistology^{1,2,3,5,8}

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

Positive Control: EGF-treated SKBR3 cells. About 5% of breast carcinomas are positive for phospho-c-erbB-2/HER-2/neu oncoprotein.

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:

Antibody 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.

Key References:

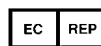
1. DiGiovanna MP and Stern DF. Cancer Research 1995;55:1946-55.
2. DiGiovanna MP et al. Br J Cancer 1996;74(5):802-6.
3. DiGiovanna MP et al. Oncogene 1998;17:1877-84.
4. Brandt BH et al. FASEB J 1999;13:1939-49.
5. Thor AD et al. J Clin Oncol 2000;18(18):3230-9.
6. Ouyang X et al. Mol Cell Biochem 2001;218(1-2):47-54.
7. Ouyang X et al. Mol Diagn 2001;6(1):17-25.
8. DiGiovanna MP et al. Cancer Research 2002;62:6667-6673.
9. Christensen JG et al. Clinical Cancer Research 2001;7:4230-4238.
10. Ramsauer VP et al. J Biol Chem 2003;278(32):30142-30147.
11. Xu W et al. Cancer Research 2003;63:7777-7784.

General References:

12. Klapper LN et al. Adv Cancer Res 2000;77:25-79.
13. Hayes DF et al. Semin Oncol 2002;29(3):231-45.
14. Siegel PM et al. EMBO J 1999;18(8):2149-64.

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



c-erbB-2 / HER-2 / neu (Phospho-specific) Ab-18 (Clone PN2A)
Mouse Monoclonal Antibody**Cat. #MS-1072-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Purified Ab with BSA and Azide)**Cat. #MS-1072-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-1072-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Biotin-Labeled Ab with BSA and Azide)

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