Anti-ErbB-3

Cat #: HM1133
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND
The EGF receptor family comprises several related receptor tyrosine kinases that are frequently overexpressed in a variety of carcinomas. They inclued EGFR (HER1), Neu (ErbB-2, HER2), ErbB-3 (HER3), and ErbB-4 (HER4), which form either homodimers or heterodimers upon ligand binding. ErbB3 has a neuregulin binding domain but not an active kinase domain. It heterodimerizes with Neu and binds heregulin to activate phosphoinositide (PI) 3-kinase. The recruitment and activation of PI3-kinase occurs via its interaction with phosphorylated YXXM motifs in the carboxy terminus of ErbB-3. Amplification of ErbB3 gene and/or overexpression of the protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. ErbB-3 gene also produces several alternative variants, including a secreted form of 85 kDa which negatively regulates heregulin stimulated ErbB activation.

SPECIFICITY
This detects ErbB-3 p160 of mouse, rat and human origin.

It can be used in Western blotting, immunoprecipitation, immunohistochemistry (including paraffin -embedded sections).

Molecular weight of ErbB-3: 200 kDa.

IMMUNOGEN
A peptide at the carboxy terminus of human ErbB-3 p160.

STORAGE
This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES
1. Plowman , G.D., Wh itney, G.S., Neubauer , M.G., Green, J.M., McDonald, V.L., Todaro, G.J., and Shoyab, M. 1990. Molecular cloning and expression of an additional epidermal growth factor receptor-related gene. Proc. Natl. Acad. Sci. USA 87: 4905-4909.
2. Kraus, M.H., Issing, W., Miki, T., Popescu, N.C., and Aaronson, S.A. 1989. Isolation and characterization of ERBB3, a third member of the ERBB/ epidermal growth factor receptor family: evidence for overexpression in a subset of human mammary tumors. Proc. Natl. Acad. Sci. USA 86: 9193-9197.
3. Kraus, M.H., Fedi, P., Sta rks, V., Mur aro, R., and Aaronson , S.A. 1993. Demonstration of ligand-dependent signaling by the erbB-3 tyrosine kinase and its constitutive activation in human breast tumor cells. Proc. Natl. Acad. Sci. USA 90: 2900-2904.
4. Lee, H. and Maihle, N.J. 1998. Isolation and characterization of four alternate c-erbB3 transcripts expressed in ovarian carcinoma-derived cell lines and normal human tissues. Oncogene 16: 3243-3252.
5. Lee, H., Akita, R.W., Sliwkowski, M.X., and Maihle, N.J. 2001. A naturally occurring secreted human ErbB3 receptor isoform inhibits heregulin-stimulated activation of ErbB2, ErbB3, and ErbB4. Cancer Res. 61: 4467-4473.
6. 7. Hellyer, N.J., Kim, M.S., and Koland, J.G. 2 001. Heregulin-dependent activation of phosphoinositide 3-kinase and Akt via the ErbB2/ ErbB3 co-receptor. J. Biol. Chem. 276: 42153-42161.for the control of protein stability and PTEN-protein interactions. J. Biol. Chem. 278, 30652-30660.

PRODUCT FROM HYPROMATRIX, INC.

A. AntibodyArray™s:
1. Signal Transduction AntibodyArray™
   Catalog Number HM3000
2. Apoptosis AntibodyArray™
   Catalog Number HM4000
3. Cell Cycle AntibodyArray™
   Catalog Number HM5000

B. Staining AntibodyArray™s
1. Staining AntibodyArray™ I
   Catalog Number HM8100
2. AntibodyArray Staining Apparatus
   Catalog Number HM8000

C. Antibodies
1. HRP-conjugated antibodies
- anti-phosphotyrosine
  Catalog Number HM2040
- anti-phosphoserine
  Catalog Number HM2070
- anti-phosphothreonine
  Catalog Number HM2090

and more…

2. Primary antibodies
Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at www.hypromatrix.com.

CONTACT

Hypromatrix, Inc.
100 Barber Avenue
Worcester, MA 01606
USA

Tel: 508-856-7900
Fax: 508-302-0748
Email: contact@hypromatrix.com
Web: www.hypromatrix.com