Product Data Sheet: Phospho-ErbB2/HER2-(Y1221/1222)

Cat. No:	ABP-0527
Conjugate:	Unconjugated
Size:	100 ug
Clone:	Poly
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu
Applications:	WB 1:1000
Molecular Weight:	138 kDa
Purification:	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding tyrosine 1221/1222 of human ErbB2 protein. Antibodies are purified by protein A and peptide affinity chromatography
Background:	Background: The ErbB2 (HER2) proto-oncogene encodes a 185 kDa transmembrane, receptor-like glycoprotein with intrinsic tyrosine kinase activity (1). While ErbB2 lacks an identified ligand, ErbB2 kinase activity can be activated in the absence of a ligand when overexpressed and through heteromeric associations with other ErbB family members (2). Amplification of the ErbB2 gene and overexpression of its product are detected in almost 40% of human breast cancers (3). Binding of the c-Cbl ubiquitin ligase to ErbB2 at Tyr1112 leads to ErbB2 poly-ubiquitination and enhances degradation of this kinase (4). ErbB2 is a key therapeutic target in the treatment of breast cancer and other carcinomas and targeting the regulation of ErbB2 degradation by the c-Cbl-regulated proteolytic pathway is one potential therapeutic strategy. Phosphorylation of the kinase domain residue Tyr877 of ErbB2 (homologous to Tyr416 of pp60cSrc) may be involved in regulating ErbB2 biological activity. The major autophosphorylation sites in ErbB2 are Tyr1248 and Tyr1221/1222; phosphorylation of these sites couples ErbB2 to the Ras-Raf-MAP kinase signal transduction pathway (1,5). Phospho-HER2/ErbB2 (Tyr1221/1222) Antibody detects endogenous levels of ErbB2 only when phosphorylated at tyrosine 1221/1222. The antibody may detect other activated Erb family members.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage:	Store at -20° C or -80° C (long term).Avoid freeze / thaw cycles.

References

(1) Muthuswamy, S.K. et al. (1999) Mol. Cell. Biol. 19, 6845–6857. (2) Qian, X. et al. (1994) Proc. Natl. Acad. Sci. USA 91, 1500–1504. (3) Dittadi, R. and Gion, M. (2000) J. Natl. Cancer Inst. 92, 1443–1444. (4) Klapper, L.N. et al. (2000) Cancer Res. 60, 3384–3388. (5) Kwon, Y.K. et al. (1997) J. Neurosci. 17, 8293–8299.

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