Product Data Sheet: Phospho-EGFR (Y998)

Cat. No:	MAB-94207
Conjugate:	Unconjugated
Size:	100 ug
Clone:	C24A5
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu
Applications:	WB 1:1000
Molecular Weight:	175 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr998 of human EGF receptor.
Background:	The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling and lysosomal degradation (1,2). Phosphorylation of EGF receptor (EGFR) at Tyr845 in the kinase domain is implicated in stabilizing the activation loop, maintaining the active state enzyme and providing a binding surface for substrate proteins (3,4). c-Src is involved in phosphorylation of EGFR at Tyr845 (5). The SH2 domain of PLCγ binds at phospho-Tyr992, resulting in activation of PLCγ-mediated downstream signaling (6). Phosphorylation of EGFR at Tyr1045 creates a major dock¬ing site for c-Cbl, an adaptor protein that leads to receptor ubiquitination and degradation following EGFR activation (7,8). The GRB2 adaptor protein binds activated EGFR at phospho-Tyr1068 (9). A pair of phosphorylated residues (Tyr1148 and Tyr1173) provides a docking site for the SHC scaffold protein, with both sites involved in MAP kinase signaling activation (2). Phosphorylation of EGFR at specific serine and threonine residues attenuates EGFR kinase activity. EGFR carboxy-terminal residues Ser1046 and Ser1047 are phosphorylated by CaM kinase II; mutation to either of these serines results in upregulated EGFR tyrosine autophosphorylation (10).Phospho-EGF Receptor (Tyr998) (C24A5) Rabbit mAb detects endogenous EGF receptor only when phosphorylated at Tyr998. . This antibody may weakly cross-react with other tyrosine-phosphorylated proteins.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage:	Store at –20°C. Avoid freeze / thaw cycles.

References

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(1999) J Biol Chem 274, 8335–43. (6) Emlet, D.R. et al. (1997) J Biol Chem 272, 4079–86. (7) Levkowitz, G. et al. (1999) Mol Cell 4, 1029–40. (8) Ettenberg, S.A. et al. (1999) Oncogene 18, 1855–66. (9) Rojas, M. et al. (1996) J Biol Chem 271, 27456–61. (10) Feinmesser, R.L. et al. (1999) J Biol Chem 274, 16168–73.