

EGFR (Tyr-1101), phospho-specific

Cat. # EM1991

Host Mouse Monoclonal IgG1

Size 100 µl

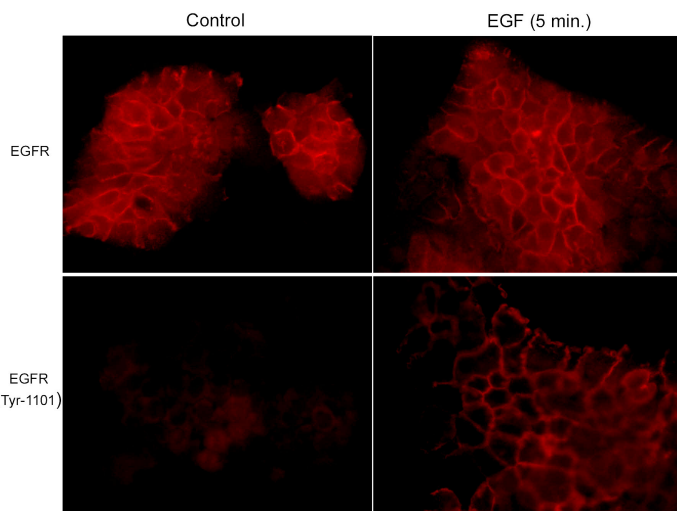
Background:

The epidermal growth factor receptor (EGFR) is a transmembrane glycoprotein with an extracellular ligand-binding domain and a cytoplasmic domain with intrinsic tyrosine kinase activity. The cytoplasmic domain has a C-terminal region with multiple autophosphorylation sites (Tyr-992, 1068, 1086, 1148, and 1173). These sites are important for downstream signaling and rapid internalization. In addition, EGFR activation leads to c-Src mediated phosphorylation of Tyr-845 and Tyr-1101. The former site is required for mitogenic responses to EGFR activation, while the latter may be an SH2 binding site. Phosphorylation of EGFR on serine and threonine residues is thought to represent a mechanism for regulation of receptor kinase activity and internalization. These sites include a PKC site (Thr-654), CAMKII sites (Ser-1046, 1047, 1057, and 1142), and constitutively phosphorylated sites (Ser-967 and Ser-1002). Thus, the regulation of EGFR activity involves a complex series of phosphorylation events at multiple sites throughout the intracellular portion of the receptor.

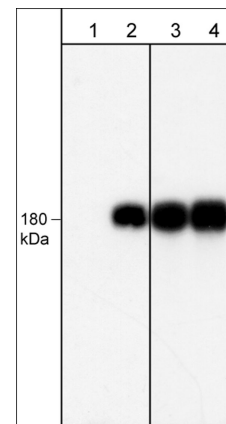
References

Carpenter, G. (2000) Bioessays 22:697.

Boeri Erba, E. et al. (2005) Mol. Cell. Prot. 4:1107.



Immunocytochemical labeling in A431 cells untreated or treated with EGF (100 ng/ml) for 5 min. The cells were labeled with anti-EGFR and anti-EGFR (Tyr-1101) monoclonal antibodies.



Western blot image of human A431 cells untreated (lanes 1 & 3) or treated with EGF (100 ng/ml) for 5 min. The blot was probed with anti-EGFR (Tyr-1101) monoclonal antibody (lanes 1 & 2) or anti-EGFR (a.a. 961-972) polyclonal antibody (lanes 3 & 4).

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Rev 8/1/2007

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Immunogen:

Phospho-EGFR (Tyr-1101) synthetic peptide (coupled to KLH) corresponding to amino acid residues surrounding tyrosine 1101 of human EGFR (ErbB-1). This human EGFR sequence has high homology to rat and mouse EGFR, and is not conserved in other ErbB family members.

Buffer and Storage:

Mouse monoclonal, protein G purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Applications:

WB 1:1,000

ELISA 1:2,000

ICC 1:200

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Specificity:

This antibody detects a 180 kDa* protein on SDS-PAGE immunoblots of human A431 cells treated with EGF, and does not detect this band in control cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

EP1871 EGFR (a.a. 961-972) Rabbit Polyclonal
EP1911 EGFR (Ser-967), phospho-specific Rabbit Polyclonal
EP1931 EGFR (Ser-1142), phospho-specific Rabbit Polyclonal
EX1995 phospho-EGFR (Tyr-1101) Peptide
AL9201 A431 EGF Ctrl Lysate
AL9301 A431 + EGF (5min) Lysate

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