

# EGFR (Tyr-1101), phospho-specific Mouse Monoclonal IgG1

Cat. # EM1991

Size 100 µl

## Background

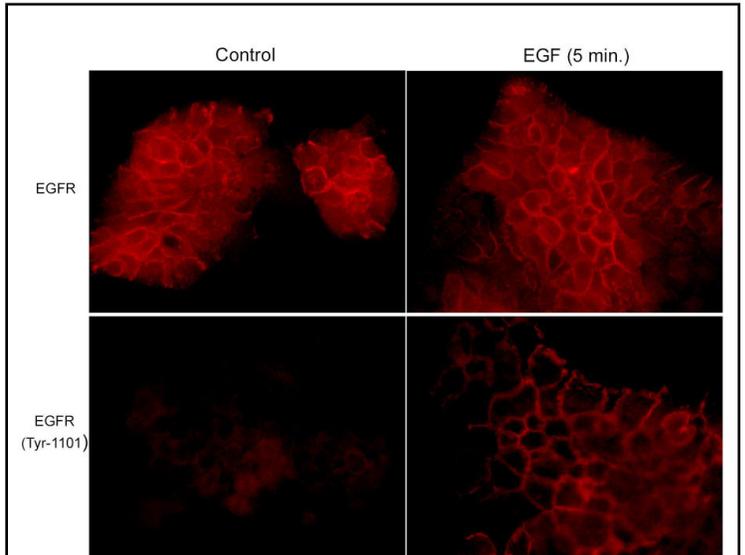
The epidermal growth factor receptor (EGFR) is a transmembrane glycoprotein with an extracellular ligand-binding domain and a cytoplasmic domain with intrinsic tyrosine kinase activity. The cytoplasmic domain has a C-terminal region with multiple autophosphorylation sites (Tyr-992, 1068, 1086, 1148, 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.

## Background References

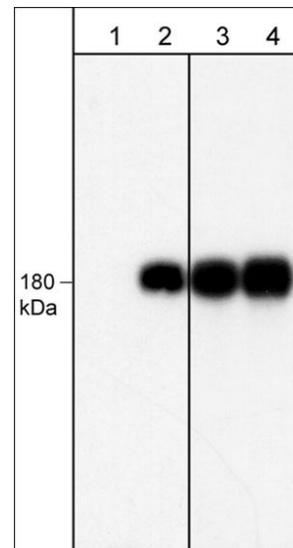
Biscardi, J.S. et al. (1999) J Biol Chem. 274(12):8335.  
Carpenter, G. (2000) Bioessays 22:697.  
Boeri Erba, E. et al. (2005) Mol. Cell. Prot. 4:1107.  
Morandell, S. et al. (2008) Proteomics. 8(21):4383.

## Product Citations

Solis, N.V. et al. (2017) MBio. 8(2). pii: e00025-17.  
*WB:human epithelial cells*



Immunocytochemical labeling in A431 cells untreated or treated with EGF (100 ng/ml) for 5 min. The cells were labeled with mouse monoclonals anti-EGFR (EM1661) and anti-EGFR (Tyr-1101) (EM1991).



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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## Immunogen

Clone M199 was generated from a 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. This site is Tyr-1125 in the P00533-1 version of

## 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. Stable for 1 year.

## Applications

WB	1:1000
ELISA	1:2000
ICC	1:200

## Species Reactivity

Hu, Rt, Ms

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, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot  
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

## 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 MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

## 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) Blocking Peptide
- AL9201 A431 EGF Control Lysate
- AL9301 A431 + EGF (5 min) Lysate

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