

EGFR (Ser-1142), phospho-specific

Cat. # EP1931

Host Rabbit Polyclonal

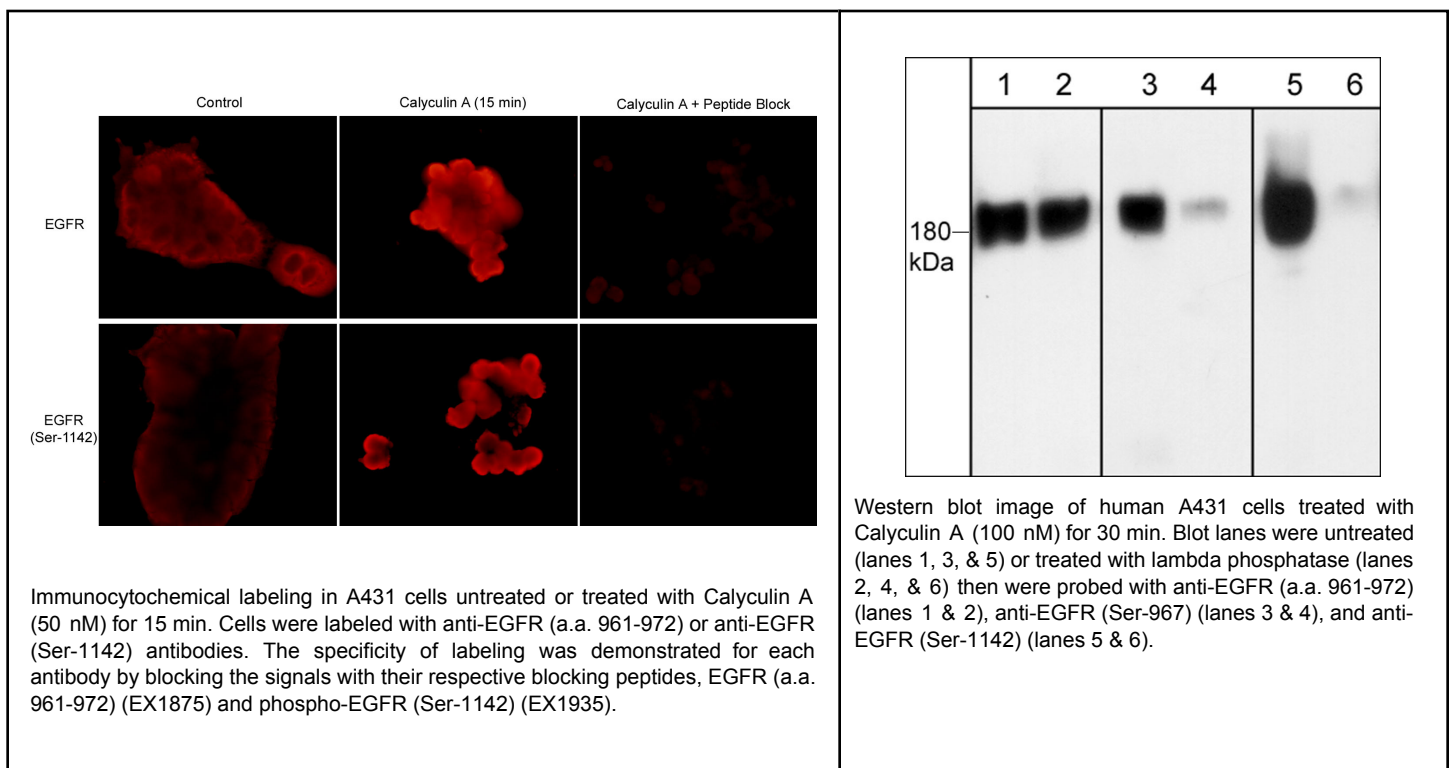
Size 100 µl

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.



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Immunogen:

Phospho-EGFR (Ser-1142) synthetic peptide (coupled to KLH) corresponding to amino acid residues surrounding serine 1142 of human EGFR (ErbB-1). This human EGFR sequence has high homology with rat and mouse EGFR, and is not conserved in other ErbB family members.

Buffer and Storage:

Rabbit polyclonal, affinity-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 was cross-adsorbed to unphosphorylated EGFR (Ser-1142) coupled to agarose then affinity purified using phospho-EGFR (Ser-1142) peptide (without carrier). The antibody detects a 180 kDa* protein on SDS-PAGE immunoblots of human A431 cells treated with Calyculin A, and does not detect this band after lambda phosphatase treatment.

*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:

EM1991 EGFR (Tyr-1101), phospho-specific Mouse Monoclonal

EP1871 EGFR (a.a. 961-972) Rabbit Polyclonal

EP1911 EGFR (Ser-967), phospho-specific Rabbit Polyclonal

EX1935 phospho-EGFR (Ser-1142) Peptide

AL9001 A431 Calyculin A Ctrl Lysate

AL9101 A431 + Calyculin A (30min) Lysate

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