

unphosphorylated EGFR (Ser-1142) Peptide

Cat. # EX1965

Size 50 µg

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.

Peptide Sequence:

Unphosphorylated EGFR (Ser-1142) synthetic peptide 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:

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.
Store at -20°C. Stable for 1 year.

Applications:

WB 1:1,000
ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody.
Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.
ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Specificity:

The peptide is recommended for use in ELISA and antibody-blocking experiments in Western blot and immunocytochemistry applications.

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
EP1931 EGFR (Ser-1142), phospho-specific Rabbit Polyclonal

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