#1110 Store at -20°C

Phospho-EGF Receptor (Tyr1068) Blocking Peptide

☑ 100 µg
(10 western blots)

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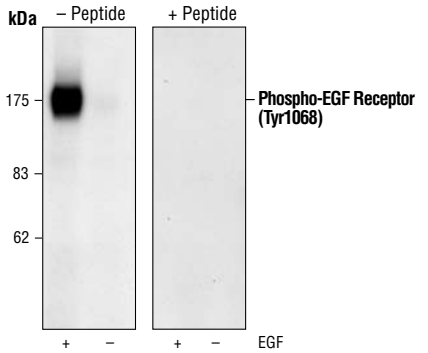
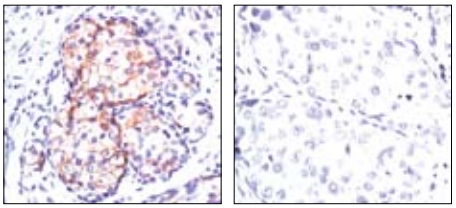
Background: The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase and member of the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling and lysosomal degradation (1,2). Phosphorylation of EGF 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 Tyr1045 creates a major docking 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) provide 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; mutations to either of these serines upregulate EGFR tyrosine autokinase activity (10).

Description: This peptide is used to block Phospho-EGF Receptor (Tyr1068) Antibody #2234 and Phospho-EGF Receptor (Tyr1068) (D7A5) XP™ Rabbit mAb #3777 reactivity.



Western blot analysis of extracts from A431 cells, untreated or EGF-stimulated using Phospho-EGF Receptor (Tyr1068) Antibody #2234 (left) or the same antibody preincubated with Phospho-EGF Receptor (Tyr1068) Antibody Blocking Peptide (right).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Phospho-EGF Receptor (Tyr1068) (1H12) Mouse mAb #2236 preincubated with an unrelated control peptide (left) or with Phospho-EGF Receptor (Tyr1068) Antibody Blocking Peptide (right).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-EGF Receptor (Tyr1068) Antibody #2234 and Phospho-EGF Receptor (Tyr1068) (D7A5) XP™ Rabbit mAb #3777 signal completely in western blotting and immunohistochemistry.

Applications: Use as a blocking reagent to evaluate the specificity of antibody reactivity in western immunoblotting and Immunohistochemistry protocols.

Directions for Use: For western Immunoblotting, add 10 ul of antibody and 10 ul of blocking peptide to 10 ml of antibody dilution buffer, and incubate at room temperature for 1 hour before allowing to react with the blot.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. Store at –20°C.

Background References:

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