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1 Pack (5 slides)



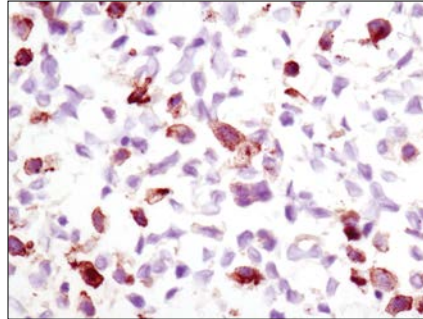
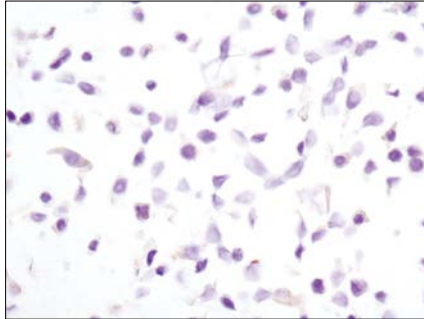
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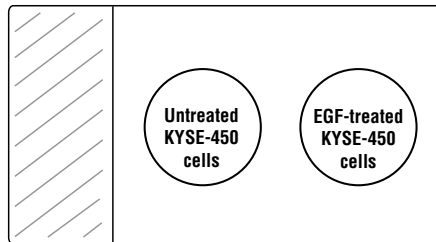


Immunohistochemical analysis of paraffin-embedded KYSE-450 cells, untreated (left) or treated with EGF (right), using Phospho-EGF Receptor (Tyr1068) (D7A5) XP (TM) Rabbit mAb #3777.

Description: Each control slide contains formalin fixed, paraffin-embedded KYSE-450 cells, both untreated and treated with EGF, that serve as a control for Phospho-EGFR immunostaining. Western blot analysis was performed on extracts derived from the same cells to verify the efficacy of the EGF treatment.

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 PLC γ binds at phospho-Tyr992, resulting in activation of PLC γ -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).

Applications: These slides are intended for use in immunohistochemical assays.



Entrez-Gene ID # 1956
Swiss-Prot Acc. # P00533

Storage: Store at 4°C.

Optimal staining is achieved if slides are stained following CST's standard IHC protocols and are used within 8 weeks of assay date; however, signals may persist beyond two months.

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

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