#5634 Store at -20°C

EGF Receptor Control Cell Extracts

☑ 150 ul
(Controls for 10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 10/26/17

For Research Use Only. Not For Use In Diagnostic Procedures.

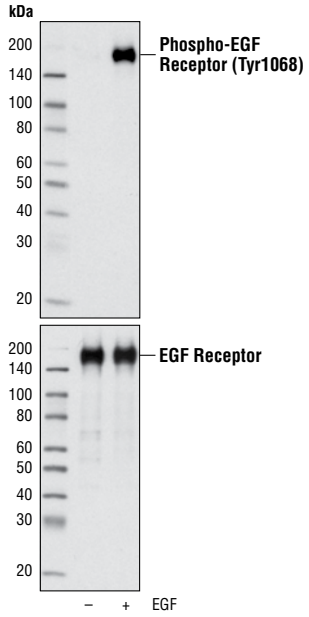
Product Includes	Product #	Quantity
EGF Receptor Control Cell Extracts (A431 untreated)	91047	150 ul
EGF Receptor Control Cell Extracts (A431 +EGF)	20417	150 ul

Background: The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling, internalization 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 EGFR at 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 EGFR residues (Tyr1148 and Tyr1173) provides 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; mutation of either of these serines results in upregulated EGFR tyrosine autophosphorylation (10).

Description: *Nonphosphorylated EGF Receptor Control Cell Extracts:* Total extracts from A431 cells, serum starved overnight to serve as a negative control. Supplied in SDS Sample Buffer.

Phosphorylated EGF Receptor Control Cell Extracts: Total extracts from A431 cells, serum starved overnight and treated with 100 ng/ml hEGF #8916 for five minutes to serve as a positive control. Supplied in SDS Sample Buffer.

Directions for Use: Boil for 3 minutes prior to use. Load 15 µl of phosphorylated and nonphosphorylated EGF Receptor Control Cell Extracts per lane.



Western blot analysis of EGF Receptor Control Cell extracts using Phospho-EGF Receptor (Tyr1068) (D7A5) XP™ Rabbit mAb #3777 (upper) and EGF Receptor (D38B1) XP™ Rabbit mAb #4267 (lower).

Background References:

(1) Hackel, P.O. et al. (1999) *Curr Opin Cell Biol* 11, 184-9.
(2) Zwick, E. et al. (1999) *Trends Pharmacol Sci* 20, 408-12.
(3) Cooper, J.A. and Howell, B. (1993) *Cell* 73, 1051-4.
(4) Hubbard, S.R. et al. (1994) *Nature* 372, 746-54.
(5) Biscardi, J.S. et al. (1999) *J Biol Chem* 274, 8335-43.
(6) Emlet, D.R. et al. (1997) *J Biol Chem* 272, 4079-86.
(7) Levkowitz, G. et al. (1999) *Mol Cell* 4, 1029-40.
(8) Ettenberg, S.A. et al. (1999) *Oncogene* 18, 1855-66.
(9) Rojas, M. et al. (1996) *J Biol Chem* 271, 27456-61.
(10) Feinmesser, R.L. et al. (1999) *J Biol Chem* 274, 16168-73.

Storage: *Supplied in SDS Sample Buffer:* 62.5 mM Tris-HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v phenol red or bromophenol blue. Store at –20°C or at –80°C for long term storage.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.