

#2256 Store at -20°C

EGF Receptor (EGFR1) Mouse mAb (IP Specific)

100 µl
 (10 immunoprecipitations)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
IP Endogenous	H	175 kDa	Mouse IgG2b**

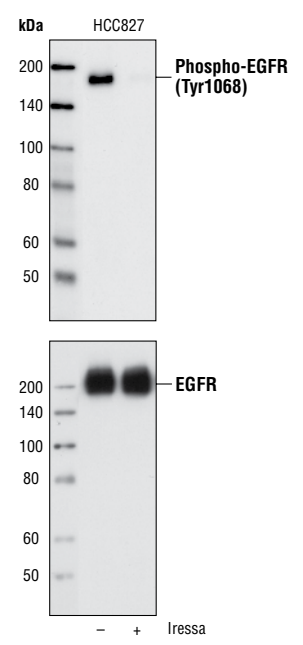
Background: The epidermal growth factor (EGF) receptor is a 170 kDa transmembrane tyrosine kinase that belongs to the HER/ErbB protein family. Ligand binding results in receptor dimerization, autophosphorylation, activation of downstream signaling, internalization and lysosomal degradation (1,2). Phosphorylation 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).

Specificity/Sensitivity: EGF Receptor (EGFR1) Mouse mAb (IP Specific) specifically immunoprecipitates endogenous EGF receptors from various cell lysates. This antibody does not cross-react with other EGF receptor family members.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant protein corresponding to the extracellular domain of human EGF receptor.

Background References:

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- Hubbard, S.R. et al. (1994) *Nature* 372, 746–754.
- Biscardi, J.S. et al. (1999) *J. Biol. Chem.* 274, 8335–8343.
- Erilet, D.R. et al. (1997) *J. Biol. Chem.* 272, 4079–4086.
- Levkowitz, G. et al. (1999) *Mol. Cell* 4, 1029–1040.
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Western blot analysis of EGF Receptor (EGFR1) Mouse mAb (IP Specific) immunoprecipitated samples from Iressa-treated and untreated HCC827 cell lysates, using Phospho-EGF Receptor (Tyr1068) Antibody (#2234) (upper) and EGF Receptor Antibody (#2232) (lower).

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

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
 Immunoprecipitation 1:100

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.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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.