

#3476 Store at -20°C

Phospho-FGF Receptor (Tyr653/654) (55H2) Mouse mAb

- Small 100 µl (10 western blots)
- Large 300 µl (30 western blots)



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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.

Entrez-Gene ID # 2260
Swiss-Prot Acc. # P11362

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Transfected	H, (M, R)	120 to 145 kDa	Mouse IgG2b**

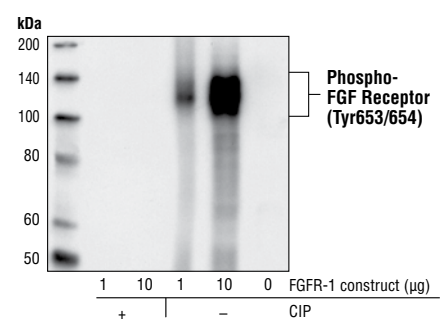
Background: Fibroblast growth factors (FGFs) produce mitogenic and angiogenic effects in target cells by signaling through cell surface receptor tyrosine kinases. There are four members of the FGF receptor family: FGFR-1 (flg), FGFR-2 (bek, KGFR), FGFR-3 and FGFR-4. Each receptor contains an extracellular ligand binding domain, a transmembrane domain and a cytoplasmic kinase domain (1). Following ligand binding and dimerization, the receptors are phosphorylated at specific tyrosine residues (2). Seven tyrosine residues in the cytoplasmic tail of FGFR-1 can be phosphorylated: Tyr463, Tyr583, Tyr585, Tyr653, Tyr654, Tyr730 and Tyr766. Tyrosines 653 and 654 are important for catalytic activity of activated FGFR and are essential for signaling (3). The other phosphorylated tyrosine residues may provide docking sites for downstream signaling components such as Crk and PLC γ (4,5).

Specificity/Sensitivity: Phospho-FGF Receptor (Tyr653/654) (55H2) Mouse mAb detects transfected levels of FGF receptors only when phosphorylated at tyrosines 653/654. The antibody cross-reacts slightly with activated PDGF and insulin/IGF-I receptors.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr653/654 of human FGF receptor-1. The corresponding sequence is identical in FGF receptor-2, -3 and -4.

Background References:

- (1) Powers, C.J. et al. (2000) *Endocr. Relat. Cancer* 7, 165–197.
- (2) Reilly, J.F. and Maher, P.A. (2001) *J. Cell Biol.* 275, 7771–7778.
- (3) Mohammadi, M. et al. (1996) *Mol. Cell. Biol.* 16, 977–989.
- (4) Mohammadi, M. et al. (1991) *Mol. Cell. Biol.* 11, 5068–5078.
- (5) Larsson, H. et al. (1999) *J. Biol. Chem.* 274, 25726–25734.



Western blot analysis of extracts from COS cells overexpressing human FGF receptor-1, untreated or calf intestine phosphatase (CIP)-treated, using Phospho-FGF Receptor (Tyr653/654) (55H2) Mouse mAb. Overexpression of human FGF receptor-1 results in constitutive activation of the receptors (courtesy of Dr. Pamela Maher, Scripps Research Institute, California, personal communication). CIP treatment abolishes the reactivity of this antibody to FGF receptor-1.

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:
Western Blotting 1:1000

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.

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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.