Revision 7

#3471 Store at -20C

Phospho-FGF Receptor (Tyr653/654) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, W-S	H	Endogenous	120, 145	Rabbit	#P11362	2260

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50

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.

Specificity / Sensitivity

Phospho-FGF Receptor (Tyr653/654) Antibody detects endogenous levels of FGF receptors only when phosphorylated at tyrosines 653/654. This antibody detects phosphorylated FGF Receptors 2 and 4 when expressed exogenously. Based on sequence comparisons, reactivity with FGF Receptor 3 is possible but has not been experimentally confirmed. This antibody also cross-reacts with activated PDGF receptor and insulin/IGF-I receptors.

Species predicted to react based on 100% sequence homology:

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr653/654 of human FGFR-1 (the corresponding sequence is the same in FGFR-2, -3 and -4). Antibodies are purified by protein A and peptide affinity chromatography.

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: FGFR1 (flg), FGFR2 (bek, KGFR), FGFR3, and FGFR4. 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 FGFR1 can be phosphorylated: Tyr463, 583, 585, 653, 654, 730, and 766. Tyr653 and Tyr654 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 PLCγ (4,5).

Background References

1. Powers, C.J. et al. (2000) *Endocr Relat Cancer* 7, 165-97.
2. Reilly, J.F. et al. (2000) *J Biol Chem* 275, 7771-8.
3. Mohammadi, M. et al. (1996) *Mol Cell Biol* 16, 977-89.
4. Mohammadi, M. et al. (1991) *Mol Cell Biol* 11, 5068-78.
5. Larsson, H. et al. (1999) *J Biol Chem* 274, 25726-34.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **W-S:** Simple Western™

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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