

#3116 Store at -20°C

FGF Receptor 2 Antibody



✓ 100 µl
(10 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 #2263
Swiss-Prot Acc. #P21802

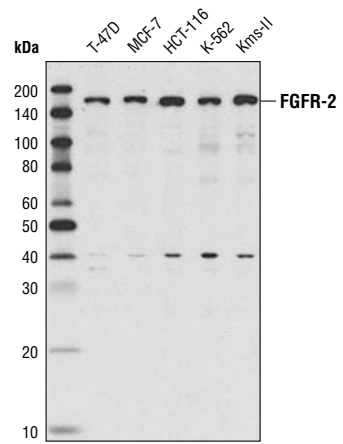
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, (M, R)	145 kDa	Rabbit**

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 PLCγ (4,5).

FGFR-2 has several splicing isoforms, with ligand specificity largely determined by alternative splicing of exons 8 (IIlb) and 9 (IIlc). Alternative splicing is cell type specific, resulting in isoforms showing various tissue distribution and biological activities (6,7). Mutations in the corresponding FGFR-2 gene cause syndromes characterized by facial and limb defects, including LADD Syndrome, Crouzon Syndrome, Beare-Stevenson Cutis Grata Syndrome, Pfeiffer Syndrome, Apert Syndrome and Jackson-Weiss Syndrome. Mutations and altered expression of FGFR-2 may also be seen in cases of gastric, endometrial and breast cancer (8).

Specificity/Sensitivity: FGF Receptor 2 Antibody detects endogenous levels of total FGF receptor 2 protein. It does not cross-react with other FGF receptor family members.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence around Pro38 of human FGF receptor 2. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using FGF Receptor 2 Antibody.

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.
- (6) Muh, S.J. et al. (2002) *J Biol Chem* 277, 50143–54.
- (7) Coutts, J.C. and Gallagher, J.T. (1995) *Immunol Cell Biol* 73, 584–9.
- (8) Eswarakumar, V.P. et al. (2005) *Cytokine Growth Factor Rev* 16, 139–49.

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-rabbit 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 BSA, 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.