Rabbit FGFR1 Polyclonal Antibody | anti-FGFR1 antibody

Phospho-FGFR1 (Tyr154) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321515	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

PRODUCT SYNONYMS

FGFR1; Polyclonal Antibody; Phospho-FGFR1 (Tyr154) Antibody; Basic fibroblast growth factor receptor 1; bFGF-R-1; BFGFR; CD331; CEK; FGFBR; FGFR 1; FGFR-1; FGFR1/PLAG1 fusion; FGFR1_HUMAN; fibroblast growth factor receptor 1; FLG; FLT-2; FLT2; Fms-like gene; Fms-like tyrosine kinase 2; fms-related tyrosine kinase 2; HBGFR; heparin-binding growth factor receptor; HH2; HRTFDS; hydroxyaryl-protein kinase; KAL2; N-SAM; OGD; Proto-oncogene c-Fgr; anti-FGFR1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-FGFR1 (Tyr154) antibody detects endogenous levels of FGFR1 only when phosphorylated at Tyrosine 154
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	820
Applicable Applications for anti-FGFR1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human FGFR1 around the phosphorylation site of Tyrosine 154
Subcellular Location	Membrane. Nucleus. Cytoplasm. Cytoplasmic Vesicle
Tissue Specificity	Detected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are detected in foreskin fibroblast cell lines, however isoform 17, isoform 18 and isoform 19 are not detected in these cells.
Conjugation	Unconjugated
Epitope	Phospho Tyr154
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

WB (Western Blot)
Western blot analysis of FGFR1 phosphorylation expression in 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

IF (Immunofluorescence)
AAA321515 staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-FGFR1 antibody	Description: The protein encoded by this gene is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. Function: Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of embryonic development, cell proliferation, differentiation and migration. Required for normal mesoderm patterning and correct axial organization during embryonic development, normal skeletogenesis and normal development of the gonadotropin-releasing hormone (GnRH) neuronal system. Phosphorylates PLCG1, FRS2, GAB1 and SHB. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1, 4, 5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Promotes phosphorylation of SHC1, STAT1 and PTPN11/SHP2. In the nucleus, enhances RPS6KA1 and CREB1 activity and contributes to the regulation of transcription. FGFR1 signaling is down-regulated by IL17RD/SEF, and by FGFR1 ubiquitination, internalization and degradation. Subunit Structure: Monomer. Homodimer after ligand binding. Interacts predominantly with FGF1 and FGF2, but can also interact with FGF3, FGF4, FGF5, FGF6, FGF8, FGF10, FGF19, FGF21, FGF22 and FGF23 (in vitro) (PubMed:1697263, PubMed:1722683, PubMed:8663044, PubMed:9655399, PubMed:12181353, PubMed:16597617, PubMed:17623664). Ligand specificity is determined by tissue-specific expression of isoforms, and differences in the third Ig-like domain are crucial for ligand specificity. Affinity for fibroblast growth factors (FGFs) is increased by heparan sulfate glycosaminoglycans that function as coreceptors. Likewise, KLB increases the affinity for FGF19, FGF21 and FGF23 (PubMed:19966287). Interacts (phosphorylated on Tyr-766) with PLCG1 (via SH2 domains) (PubMed:1656221, PubMed:1379697, PubMed:21765395). Interacts with FRS2 (PubMed:21765395). Interacts with RPS6KA1 (PubMed:15117958). Interacts (via C-terminus) with NEDD4 (via WW3 domain) (PubMed:21765395). Interacts with KL (By similarity). Interacts with SHB (via SH2 domain) (PubMed:12181353). Interacts with GRB10 (PubMed:10454568). Interacts with ANOS1; this interaction does not interfere with FGF2-binding to FGFR1, but prevents binding of heparin-bound FGF2 (PubMed:19696444). Interacts with SOX2 and SOX3. Interacts with FLRT1, FLRT2 and FLRT3 (By similarity). Found in a ternary complex with FGF1 and ITGAV:ITGB3 (PubMed:20422052, PubMed:18441324). Post-translational Modifications: Autophosphorylated. Binding of FGF family members together with heparan sulfate proteoglycan or heparin promotes receptor dimerization and autophosphorylation on tyrosine residues. Autophosphorylation occurs in trans between the two FGFR molecules present in the dimer and proceeds in a highly ordered manner. Initial autophosphorylation at Tyr-653 increases the kinase activity by a factor of 50 to 100. After this, Tyr-583 becomes phosphorylated, followed by phosphorylation of Tyr-463, Tyr-766, Tyr-583 and Tyr-585. In a third stage, Tyr-654 is autophosphorylated, resulting in a further tenfold increase of kinase activity. Phosphotyrosine residues provide docking sites for interacting proteins and so are crucial for FGFR1 function and its regulation. Ubiquitinated. FGFR1 is rapidly ubiquitinated by NEDD4 after autophosphorylation, leading to internalization and lysosomal degradation. CBL is recruited to activated FGFR1 via FRS2 and GRB2, and mediates ubiquitination and subsequent degradation of FGFR1. N-glycosylated in the endoplasmic reticulum. The N-glycan chains undergo further maturation to an Endo H-resistant form in the Golgi apparatus. Similarity: The second and third Ig-like domains directly interact with fibroblast growth factors (FGF) and heparan sulfate proteoglycans. Isoforms lacking the first Ig-like domain have higher affinity for fibroblast growth factors (FGF) and heparan sulfate proteoglycans than isoforms with all three Ig-like domains. Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	291327489

NCBI GeneID	2260
NCBI Accession #	NP_001167534.1
NCBI GenBank Nucleotide #	NM_001174063.1
UniProt Accession #	P11362; P17049; Q02063; Q02065; Q14306; Q14307; Q53H63; Q59H40; Q5BJG2; A8K6T9; A8K8V5; C1KBH8
Molecular Weight	Observed: 120; 145 kDa Predicted: 92 kDa
NCBI Official Full Name	fibroblast growth factor receptor 1 isoform 10
NCBI Official Synonym Full Names	fibroblast growth factor receptor 1
NCBI Official Symbol	FGFR1
NCBI Official Synonym Symbols	CEK; FLG; HH2; OGD; ECCL; FLT2; KAL2; BFGFR; CD331; FGFBR; FLT-2; HBGFR; N-SAM; FGFR-1; HRTFDS; bFGF-R-1
NCBI Protein Information	fibroblast growth factor receptor 1
UniProt Protein Name	Fibroblast growth factor receptor 1
UniProt Gene Name	**FGFR1**
UniProt Synonym Gene Names	BFGFR; CEK; FGFBR; FLG; FLT2; HBGFR; FGFR-1; BFGFR; bFGF-R-1; FLT-2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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