

Rabbit Anti-FGFR1/CD331/Cy5 Conjugated antibody

SL0230R-Cy5

Product Name	Anti-FGFR1/CD331/Cy5
Chinese Name	Cy5 标记的碱性成纤维细胞生长因子受体 1 抗体
Alias	bFGF R; BFGFR; C FGR; CD 331; CD331; CD331 antigen; CEK; FGFBR; FGFR 1; FGF Receptor 1; Fibroblast growth factor receptor 1; FLG; FLG protein; FLJ14326; FLT 2; FLT2; Fms like tyrosine kinase 2; Fms related tyrosine kinase 2; Fms related tyrosine kinase 2 Pfeiffer syndrome; H2; H3; H4; H5; HBGFR; Heparin binding growth factor receptor; Hydroxyaryl protein kinase; KAL 2; KAL2; MFR; N SAM; N sam tyrosine kinase; Protein tyrosine kinase; Tyrosylprotein kinase; Basic fibroblast growth factor receptor 1.
Research Area	Tumour Cell biology immunology Growth factors and hormones
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Chicken,Dog,Cow) IF=1:100-500
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	88kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human BFGFR C-terminus
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Storage	

background:

Fibroblast growth factors (FGFs) produce mitogenic and angiogenic effects in target cells by signaling through the cellular surface tyrosine kinase receptors. 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 region 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. Tyrosine 653 and 654 are important for catalytic activity of the 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 PLCgamma.

Function:

Receptor for basic fibroblast growth factor. Receptor for FGF23 in the presence of KL. A shorter form of the receptor could be a receptor for FGF1 (aFGF).

Subunit:

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). 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. Interacts (phosphorylated on Tyr-766) with PLCG1 (via SH2 domains). Interacts with FRS2A. Interacts (via C-terminus) with NEDD4 (via WW3 domain). Interacts with KL. Interacts with SHB (via SH2 domain) and GRB10. Interacts with KAL1; this interaction does not interfere with FGF2-binding to FGFR1, but prevents binding of heparin-bound FGF2. Interacts with SOX2 and SOX3

Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Nucleus. Cytoplasm, cytosol. Cytoplasmic vesicle. Note=After ligand binding, both receptor and ligand are rapidly internalized. Can translocate to the nucleus after internalization, or by translocation from the endoplasmic reticulum or Golgi apparatus to the cytosol, and from there to the nucleus.

Tissue Specificity:

Detected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are detected in foreskin fibroblast cell lines, however isoform 17,

Product Detail

isoform 18 and isoform 19 are not detected in these cells.

Post-translational modifications:

Binding of FGF1 and heparin promotes autophosphorylation on tyrosine residues and activation of the receptor.

DISEASE:

Defects in FGFR1 are a cause of Pfeiffer syndrome (PS) ; also known as acrocephalosyndactyly type V (ACS5). PS is characterized by craniosynostosis (premature fusion of the skull sutures) with deviation and enlargement of the thumbs and great toes, brachymesophalangy, with phalangeal ankylosis and a varying degree of soft tissue syndactyly. Defects in FGFR1 are a cause of idiopathic hypogonadotropic hypogonadism (IHH) [MIM:146110]. IHH is defined as a deficiency of the pituitary secretion of follicle-stimulating hormone and luteinizing hormone, which results in the impairment of pubertal maturation and of reproductive function.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily. Contains 3 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.

Database links:

[Entrez Gene: 2260](#) Human

[Entrez Gene: 14182](#) Mouse

[Entrez Gene: 79114](#) Rat

[Omim: 136350](#) Human

[SwissProt: P11362](#) Human

[SwissProt: P16092](#) Mouse

[SwissProt: Q04589](#) Rat

[Unigene: 264887](#) Human

[Unigene: 265716](#) Mouse

[Unigene: 207203](#) Rat

Unigene: 9797 Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

碱性成纤维细胞生长因子(bFGF)是一种多功能的生长因子,具有促进细胞有丝分裂和诱导新血管形成作用,和其受体(FGFR1)碱性成纤维细胞生长因子受体结合之后,在人体各组织中具有广泛的生物学活性和生理病理作用.越来越多的研究表明 Tumour 细胞中 bFGF-R1 过度表达对 Tumour 发生发展具有重要意义。