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Mouse Fgfr4 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21465c

Product Information

Application	WB, E
Primary Accession	Q03142
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB50681
Calculated MW	88661

Additional Information

Gene ID	14186
Other Names	Fibroblast growth factor receptor 4, FGFR-4, Protein-tyrosine kinase receptor MPK-11, CD334, Fgfr4, Fgfr-4, Mpk-11
Target/Specificity	This Mouse Fgfr4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 448-482 amino acids from the Central region of Mouse Fgfr4.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Fgfr4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Fgfr4
Synonyms	Fgfr-4, Mpk-11
Function	Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid

	biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down- regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 and FRS2. 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 SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Plays a role in postnatal lung development. May be involved in the development of skeletal muscle cell lineages.
Cellular Location	Cell membrane; Single-pass type I membrane protein Endosome. Endoplasmic reticulum Note=Internalized from the cell membrane to recycling endosomes, and from there back to the cell membrane.
Tissue Location	Isoform 1 and isoform 2 are expressed in lung and proliferating myoblasts and myotubes of primary myogenic cells (at protein level). Isoform 1 and isoform 2 are expressed in liver, muscle, spleen, heart, lung, kidney and in primary myogenic cells

Background

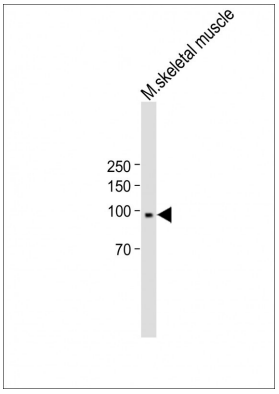
Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down-regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 and FRS2. 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 SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Plays a role in postnatal lung development. May be involved in the development of skeletal muscle cell lineages.

References

Stark K.L.,et al.Development 113:641-651(1991).
Kwiatkowski B.A.,et al.J. Cell. Physiol. 215:803-817(2008).
Carninci P.,et al.Science 309:1559-1563(2005).
Gilardi-Hebenstreit P.,et al.Oncogene 7:2499-2506(1992).
Weinstein M.,et al.Development 125:3615-3623(1998).

Images

All lanes : Anti-Mouse Fgfr4 Antibody (Center) at 1:1000 dilution Lane 1 : Mouse skeletal muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 90kDa Blocking/Dilution buffer : 5% NFDM/TBST.



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