abcam

ab234282

Anti-FGFR4 antibody [4FR6D3]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing FGFR4 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P22455
Clone number	4FR6D3
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	> 95% (by SDS-PAGE).

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	2-6 µg/mL

Notes	-

Target data

See full target information FGFR4

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. Mutations that lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	FGFR4 or fibroblast growth factor receptor 4 is a receptor tyrosine kinase weighing approximately 110 kDa. This protein plays a role in cellular processes by binding to fibroblast growth factors. FGFR4 is expressed in many tissues including muscle

	liver and the developing epidermis. It is known by alternate names like CD334 or FRFR4. This receptor's activation leads to receptor dimerization and autophosphorylation triggering downstream signaling pathways that affect cell proliferation differentiation and migration.
Biological function summary	FGFR4 influences various developmental and metabolic processes. It is important in limb and skeletal development epithelial cell morphogenesis and muscle fiber regeneration. FGFR4 often partners with heparan sulfate proteoglycans to form a signaling complex which defines the specificity and regulation of fibroblast growth factor signaling. The receptor's interaction with other proteins like FRFR4 and 5b5 further modulates its biological activity.
Pathways	FGFR4 participates in the MAPK and PI3K-Akt signaling pathways both important for regulating cell survival and growth. These pathways allow FGFR4 to connect with several other proteins such as FGFR1 and BLU-554. FGFR4's activation within these pathways helps determine cellular responses to hormonal and mitogenic signals further influencing tissue homeostasis and repair mechanisms.
Associated diseases and disorders	FGFR4 is linked to certain cancers including hepatocellular carcinoma and colorectal cancer notable in cell lines like HCT116 and others. Overexpression or mutations in FGFR4 can drive tumor progression promoting uncontrolled growth and metastasis. FGFR4's relation to other key proteins such as FRAF and 19h3 highlights its role in pathogenesis making it a potential target for therapeutic interventions. Studies involving FGFR4 ELISA kits enhance understanding of its role in disease development and progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

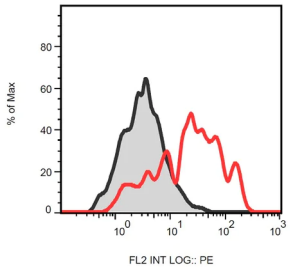
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - Anti-FGFR4 antibody [4FR6D3] (ab234282)

FGFR4 Flow Cytometry staining using mouse Anti-FGFR4 antibody

Flow cytometric analysis of Caco-2 cells using ab234282 (red) compared to a negative control (black).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.