abcam

ab272012

Anti-FGFR2 antibody [SP273] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	SP273
Purification technique	Affinity purification Protein A/G
Concentration	1.041 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Boil tissue section in citrate buffer pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 10 minutes at room temperature.

Not recommended

Species	Mouse
Dilution info	-
Notes	Boil tissue section in citrate buffer pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 10 minutes at room temperature.

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

I-ELISA

Tested

Species	Synthetic peptide - Human
Dilution info	1 µg/mL
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Synthetic peptide - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Synthetic peptide - Human
Dilution info	-
Notes	-

Target data

See full target information FGFR2

Function	Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. 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. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab272012 is the carrier-free version of ab227683.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes,

oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	The fibroblast growth factor receptor 2 (FGFR2) also known as CD332 is a protein that functions as a transmembrane receptor tyrosine kinase. FGFR2 is important in signal transduction where it binds to fibroblast growth factors triggering downstream intracellular pathways. FGFR2 has two main isoforms FGFR2b and FGFR2c created through alternative splicing. The molecular weight of FGFR2 varies by isoform typically around 100-110 kDa. It gets expressed in various tissues including epithelial and mesenchymal tissues.
Biological function summary	FGFR2 plays a role in diverse cellular processes like proliferation differentiation and migration. As part of a receptor-ligand complex FGFR2 partners with fibroblast growth factors to initiate signaling cascades. It contributes to embryonic development tissue repair and angiogenesis. FGFR2b expression predominantly appears in epithelial cells while FGFR2c is found in mesenchymal cells reflecting its distinct role in tissue-specific signaling.
Pathways	FGFR2 integrates into key signaling networks especially the MAPK and PI3K/AKT pathways. It interacts with proteins like FRS2 and GRB2 which facilitate the activation of downstream signals promoting cell survival and growth. FGFR2's engagement in these pathways is critical for maintaining normal cellular functions and contributes to its involvement in regulating complex cellular responses.
Associated diseases and disorders	FGFR2 mutations have connections with certain cancers and craniosynostosis syndromes. Alterations in FGFR2 signaling pathways can lead to aberrant cellular growth and have been found in various cancers including breast and gastric cancer. In craniosynostosis syndromes mutations in FGFR2 affect bone development linking it with disorders like Apert syndrome. These conditions demonstrate the pivotal role of FGFR2 in maintaining cellular homeostasis and the consequences of its dysfunction.

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.

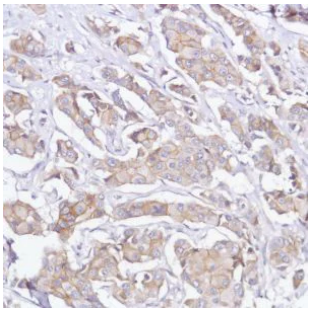
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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8 product images

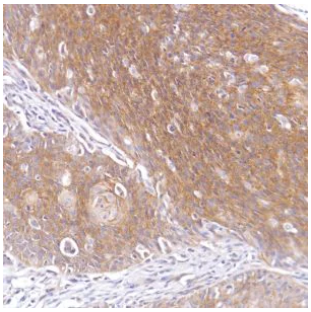


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human breast ductal carcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

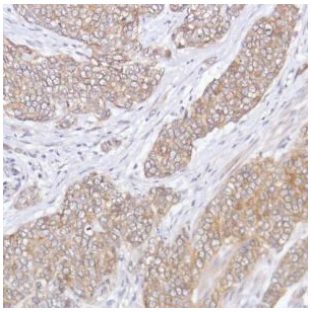


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human cervical squamous cell carcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

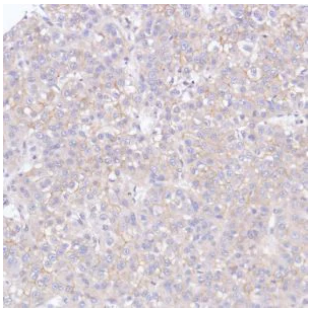


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human bladder transitional cell carcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

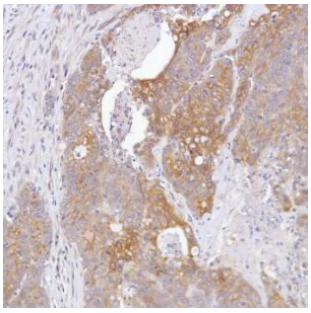


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human hepatocellular carcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

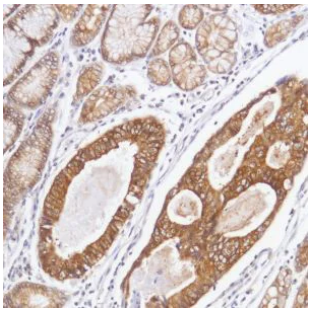


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

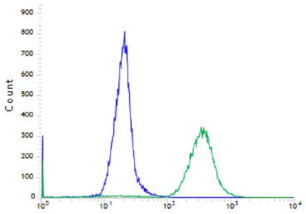


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGFR2 antibody

Formalin-fixed, paraffin-embedded human stomach adenocarcinoma tissue stained for FGFR2 using ab227683 at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

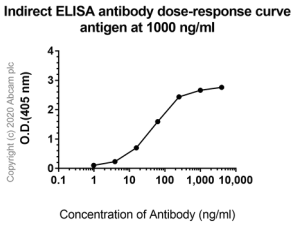


Flow Cytometry - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

FGFR2 Flow Cytometry staining using rabbit Anti-FGFR2 antibody

Flow Cytometry analysis of Kato III (human gastric carcinoma cell line) cells labeling FGFR2 with ab227683 at 1/400 dilution (green) compared to a Rabbit IgG negative control (blue).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).



Indirect ELISA - Anti-FGFR2 antibody [SP273] - BSA and Azide free (ab272012)

indirect ELISA using ab227683 at varying antibody concentrations (4000~0 ng /ml) and FGFR2 antigen at 1000 ng/ml. Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution dilution was used as a secondary antibody.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227683).

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