abcam

ab222932

Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, 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	EPR20145-219
Purification technique	Affinity purification Protein A
Specificity	Mouse is only guaranteed in ELISA when detecting recombinant protein. We do not guarantee other applications and ELISA materials.
Concentration	1.033 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

I-ELISA

Tested

Species	Human, Recombinant fragment - Mouse
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Mouse, Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Species	Human
Dilution info	-
Notes	Application guaranteed in human only

Not recommended

Species	Recombinant fragment - Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Mouse, Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Recombinant fragment - Mouse, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information FGF2

Function	Acts as a ligand for FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed:8663044). Also acts as an integrin ligand which is required for FGF2 signaling (PubMed:28302677). Binds to integrin ITGAV:ITGB3 (PubMed:28302677). Plays an important role in the regulation of cell survival, cell division, cell differentiation and cell migration (PubMed:28302677, PubMed:8663044). Functions as a potent mitogen in vitro (PubMed:1721615, PubMed:3732516, PubMed:3964259). Can induce angiogenesis (PubMed:23469107, PubMed:28302677). Mediates phosphorylation of ERK1/2 and thereby promotes retinal lens fiber differentiation (PubMed:29501879).

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

ab222932 is the carrier-free version of ab208687.

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.

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.

What does low endotoxin mean?
Our low endotoxin, azide-free formats have low endotoxin level (1 EU/mg, determined by the TAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Supplementary info

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

Activity summary	FGF2 also known as FGF-2 or basic fibroblast growth factor is a protein that plays important roles in various cellular processes. It is a member of the fibroblast growth factor family and has a molecular weight of approximately 18 kDa. Scientists find FGF2 protein in many tissues including brain myocardium and bone. The protein can exist in different forms including recombinant variants. It interacts with cell surface receptors to exert its effects significantly influencing cell behavior.
Biological function summary	Various functions characterize FGF2 such as cell proliferation differentiation and migration. It does not act alone but is part of a larger protein complex. This complex includes FGF receptors which help mediate the binding of the FGF2 peptide ensuring proper signaling within the cells. FGF2 is important for development and repair processes making it an essential factor in tissue maintenance and regeneration.
Pathways	FGF2 plays a big role in critical pathways like the MAPK/ERK signaling pathway and PI3K/Akt pathway. These pathways help regulate the processes of cell growth and survival. FGF2 interacts with other protein molecules such as FGFR1 and FGFR2 which serve as receptors to propagate the signaling cascade initiated by FGF2 binding. Its interaction in these pathways underlines its role in modulating important cellular responses.
Associated diseases and disorders	Scientists connect FGF2 with conditions such as cancer and atherosclerosis. The protein's deregulation may lead to abnormal cell proliferation contributing to tumor growth and vascular diseases. FGF2's interaction with proteins like FGFR1 can influence cancer progression and plaque formation in blood vessels. By understanding FGF2's role in these diseases researchers aim to develop targeted therapies that can potentially alter disease outcomes.

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

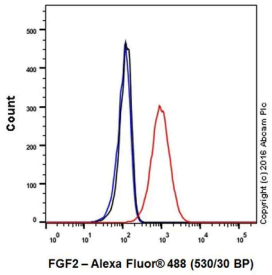
We do not recommend this combination. It is not covered by our product promise.

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.

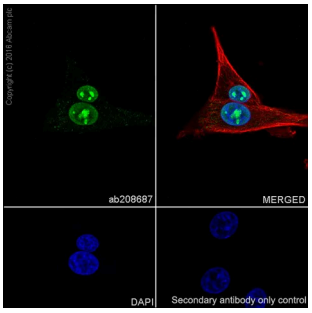
5 product images



Flow Cytometry (Intracellular) - Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, Azide free (ab222932)

FGF2 Flow Cytometry (Intracellular) staining using rabbit Anti-FGF2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling FGF2 with ab208687 at 1/600 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208687).



Immunocytochemistry/ Immunofluorescence - Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, Azide free (ab222932)

FGF2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-FGF2 antibody

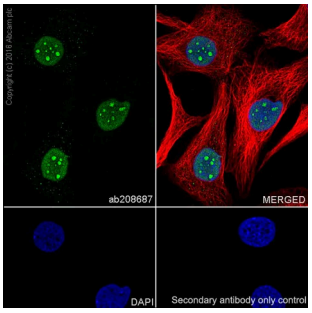
Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) cells labeling FGF2 with ab208687 at 1/500 dilution followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing nuclear and weak cytoplasmic staining on U-87 MG cell line.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS BSA glycerol and sodium azide (ab208687).



Immunocytochemistry/ Immunofluorescence - Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, Azide free (ab222932)

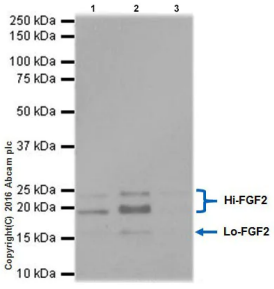
FGF2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-FGF2 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized SK-OV-3 (Human ovarian cancer cell line) cells labeling FGF2 with ab208687 at 1/500 dilution followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).
Confocal image showing nuclear weak cytoplasmic staining on SK-OV-3 cell line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS BSA glycerol and sodium azide (ab208687).



Immunoprecipitation - Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, Azide free (ab222932)

FGF2 was immunoprecipitated from 0.35 mg of K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate with ab208687 at 1/30 dilution.
Western blot was performed from the immunoprecipitate using ab208687 at 1/500 dilution.

VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.

Lane 1: K562 whole cell lysate 10µg (Input).

Lane 2: ab208687 IP in K562 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab208687 in K562 whole cell lysate.

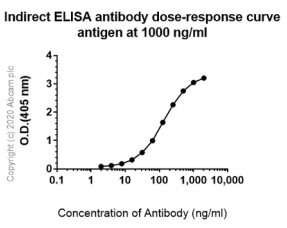
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208687).

All lanes:
Immunoprecipitation - Anti-FGF2 antibody [EPR20145-219] (ab208687)

Predicted band size: 30 kDa



Indirect ELISA - Anti-FGF2 antibody [EPR20145-219] - Low endotoxin, Azide free (ab222932)

This data was developed using ab208687, the same antibody clone in a different buffer formulation.ELISA analysis of Mouse FGF2 recombinant protein at 1000 ng/ml with ab208687. An Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as the secondary antibody.

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