abcam

Product datasheet

Anti-FGFR1 antibody [EPR806Y] - Low endotoxin, Azide free ab206382





RabMAb

3 References 3 Images

Overview

Product name Anti-FGFR1 antibody [EPR806Y] - Low endotoxin, Azide free

DescriptionRabbit monoclonal [EPR806Y] to FGFR1 - Low endotoxin, Azide free

Host species Rabbit

Tested applications Suitable for: IP, WB, ICC/IF

Unsuitable for: IHC-P

Species reactivity Reacts with: Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: SH-SY5Y cell lysate.

General notes ab206382 is the carrier-free version of <u>ab76464</u>.

Our <u>carrier-free</u> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

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.

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 production

For more information see here.

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

Our <u>Low endotoxin</u>, <u>azide-free formats</u> have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

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Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.20

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal
Clone number EPR806Y

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab206382 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 92 kDa.
ICC/IF		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P.

Target

Function Receptor for basic fibroblast growth factor. Receptor for FGF23 in the presence of KL (By

similarity). A shorter form of the receptor could be a receptor for FGF1 (aFGF).

Tissue specificityDetected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are

detected in foreskin fibroblast cell lines, however isoform 17, isoform 18 and isoform 19 are not

detected in these cells.

Involvement in disease Defects in FGFR1 are a cause of Pfeiffer syndrome (PS) [MIM:101600]; 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.

Defects in FGFR1 are the cause of Kallmann syndrome type 2 (KAL2) [MIM:147950]; also known as hypogonadotropic hypogonadism and anosmia. Anosmia or hyposmia is related to the absence or hypoplasia of the olfactory bulbs and tracts. Hypogonadism is due to deficiency in gonadotropin-releasing hormone and probably results from a failure of embryonic migration of gonadotropin-releasing hormone-synthesizing neurons. In some cases, midline cranial anomalies (cleft lip/palate and imperfect fusion) are present and anosmia may be absent or inconspicuous. Defects in FGFR1 are the cause of osteoglophonic dysplasia (OGD) [MIM:166250]; also known as osteoglophonic dwarfism. OGD is characterized by craniosynostosis, prominent supraorbital ridge, and depressed nasal bridge, as well as by rhizomelic dwarfism and nonossifying bone lesions. Inheritance is autosomal dominant.

Defects in FGFR1 are the cause of trigonocephaly non-syndromic (TRICEPH) [MIM:190440]; also known as metopic craniosynostosis. The term trigonocephaly describes the typical keel-shaped deformation of the forehead resulting from premature fusion of the frontal suture. Trigonocephaly may occur also as a part of a syndrome.

Note=A chromosomal aberration involving FGFR1 may be a cause of stem cell leukemia lymphoma syndrome (SCLL). Translocation t(8;13)(p11;q12) with ZMYM2. SCLL usually presents as lymphoblastic lymphoma in association with a myeloproliferative disorder, often accompanied by pronounced peripheral eosinophilia and/or prominent eosinophilic infiltrates in the affected bone marrow.

Note=A chromosomal aberration involving FGFR1 may be a cause of stem cell myeloproliferative disorder (MPD). Translocation t(6;8)(q27;p11) with FGFR1OP. Insertion ins(12;8)(p11;p11p22) with FGFR1OP2. MPD is characterized by myeloid hyperplasia, eosinophilia and T-cell or B-cell lymphoblastic lymphoma. In general it progresses to acute myeloid leukemia. The fusion proteins FGFR1OP2-FGFR1, FGFR1OP-FGFR1 or FGFR1-FGFR1OP may exhibit constitutive kinase activity and be responsible for the transforming activity.

Note=A chromosomal aberration involving FGFR1 may be a cause of stem cell myeloproliferative disorder (MPD). Translocation t(8;9)(p12;q33) with CEP110. MPD is characterized by myeloid hyperplasia, eosinophilia and T-cell or B-cell lymphoblastic lymphoma. In general it progresses to acute myeloid leukemia. The fusion protein CEP110-FGFR1 is found in the cytoplasm, exhibits constitutive kinase activity and may be responsible for the transforming activity.

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily.

Contains 3 lg-like C2-type (immunoglobulin-like) domains.

Contains 1 protein kinase domain.

Post-translational modifications

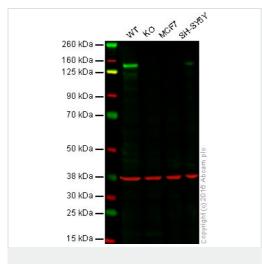
Binding of FGF1 and heparin promotes autophosphorylation on tyrosine residues and activation of the receptor.

or the rece

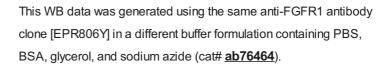
Cellular localization

Membrane. Nucleus. Cytoplasm. Cytoplasmic vesicle

Images



Western blot - Anti-FGFR1 antibody [EPR806Y] - Low endotoxin, Azide free (ab206382)



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

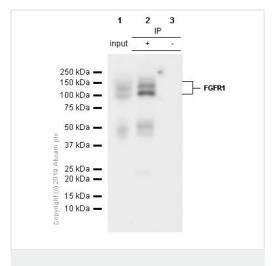
Lane 2: FGFR1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: MCF7 whole cell lysate (20 µg)

Lane 4: SH-SY5Y whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - <u>ab76464</u> observed at 140 kDa. Red - loading control, <u>ab8245</u>, observed at 37 kDa.

<u>ab76464</u> was shown to specifically react with FGFR1 when FGFR1 knockout samples were used. Wild-type and FGFR1 knockout samples were subjected to SDS-PAGE. <u>ab76464</u> and <u>ab8245</u> (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1 μg/mL and 1/10000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



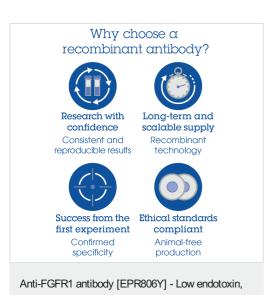
Immunoprecipitation - Anti-FGFR1 antibody

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<u>ab76464</u> (purified) at 1/500 immunoprecipitating FGFR1 in 10 μg A-204 (Human muscle rhabdomyosarcoma)whole cell lysate (Lanes 1 and 2, observed at 145 kDa). Lane 3 - Rabbit monoclonal lgG (<u>ab172730</u>) instead of <u>ab76464</u> in A-204 whole cell lysate. For western blotting, VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>), was used for detection at 1/1000 dilution.

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76464).



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