abcam

Product datasheet

Anti-FGFR1 (phospho Y653) antibody [EPR843(N)] ab173305

Recombinant RabMAb

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Overview

Product name	Anti-FGFR1 (phospho Y653) antibody [EPR843(N)]
Description	Rabbit monoclonal [EPR843(N)] to FGFR1 (phospho Y653)
Host species	Rabbit
Specificity	ab173305 only detects FGFR1 phosphorylated at Tyrosine 653.
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC or IP
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide within Human FGFR1 aa 600-700 (phospho Y653) (Cysteine residue). The exact sequence is proprietary. Database link: P11362 Run BLAST with Run BLAST with
Positive control	WB: NIH/3T3 cell lysate treated with pervanadate. IHC-P: Human glioma tissue.
General notes	This antibody was developed as part of a collaboration between Epitomics and Ira Daar at the National Cancer Institute, NIH. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. **We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.** This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

	term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Constituents: 0.35% Sodium citrate, 0.17% Sodium chloride, 0.03% EDTA, 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR843(N)
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab173305** 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
WB		1/1000 - 1/5000. Predicted molecular weight: 92 kDa.
IHC-P	★★★★☆	1/50 - 1/100.

Application notes Is unsuitable for Flow Cyt,ICC or IP.

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 specificity Detected 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 Ig-like C2-type (immunoglobulin-like) domains.
Contains 1 protein kinase domain.

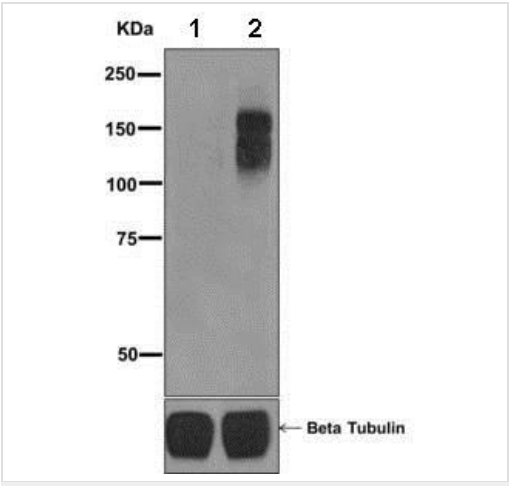
Post-translational modifications

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

Cellular localization

Membrane. Nucleus. Cytoplasm. Cytoplasmic vesicle

Images



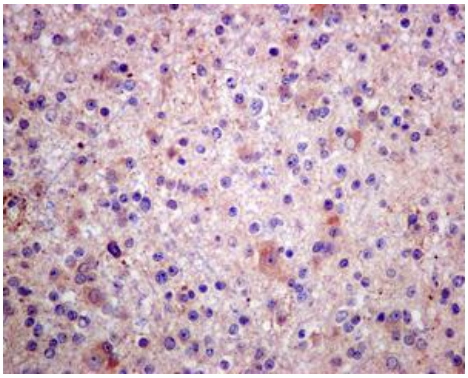
Western blot - Anti-FGFR1 (phospho Y653) antibody [EPR843(N)] (ab173305)

All lanes : Anti-FGFR1 (phospho Y653) antibody [EPR843(N)] (ab173305) at 1/1000 dilution

Lane 1 : Untreated NIH/3T3 (Mouse embryo fibroblast cell line) cell lysate
Lane 2 : NIH/3T3 (Mouse embryo fibroblast cell line) cell lysate treated with pervanadate

Lysates/proteins at 10 µg per lane.

Predicted band size: 92 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGFR1 (phospho Y653) antibody [EPR843(N)] (ab173305)

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling FGFR1 (phospho Y653) with ab173305 at 1/50 dilution.

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