Product datasheet

Anti-FGFR1 antibody [EPR806Y] ab76464

Overview

Product name: Anti-FGFR1 antibody [EPR806Y]
Description: Rabbit monoclonal [EPR806Y] to FGFR1
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, WB
Unsuitable for: IHC-P
Species reactivity: Reacts with: Human
Immunogen: Synthetic peptide within Human FGFR1 aa 800 to the C-terminus (C terminal). The exact sequence is proprietary.
Database link: P11362
(Peptide available as ab177436)
Positive control: WB: Wild-type HAP1, MCF-7 and SH-SY5Y cell lysate.
General notes: Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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 buffer: pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: PBS, 40% Glycerol, 0.05% BSA

2 Abviews  12 References  3 Images
**Purity**  
Protein A purified

**Clonality**  
Monoclonal

**Clone number**  
EPR806Y

**Isotype**  
IgG

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### Applications

Our Abpromise guarantee covers the use of ab76464 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td>1/500</td>
<td>Predicted molecular weight: 92 kDa. Can be blocked with FGFR1 peptide (ab177436).</td>
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**Application notes**  
Is unsuitable for IHC-P.

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### 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

Images

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 - ab76464 observed at 140 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab76464 was shown to specifically react with FGFR1 when FGFR1 knockout samples were used. Wild-type and FGFR1 knockout samples were subjected to SDS-PAGE. ab76464 and ab8245 (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.
Anti-FGFR1 antibody [EPR806Y] (ab76464) at 1/500 dilution (purified) + SH-SY5Y (Human neuroblastoma cell line from bone marrow) cell lysate at 10 µg

**Secondary**
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

**Predicted band size:** 92 kDa

**Observed band size:** 145 kDa

**why is the actual band size different from the predicted?**

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

Anti-FGFR1 antibody [EPR806Y] (ab76464) at 1/500 dilution (unpurified) + SH-SY5Y (Human neuroblastoma cell line from bone marrow) cell lysate at 10 µg

**Secondary**
HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

**Predicted band size:** 92 kDa

**Observed band size:** 130 kDa

**why is the actual band size different from the predicted?**

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**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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