abcam

Product datasheet

Recombinant human FGFR1 protein (Active) ab168696

1 Image

Description

Product name	Recombinant human FGFR1 protein (Active)
Biological activity	Recombinant human FGFR1 protein (Active) (ab168696) captured on CM5 chip via anti-His antibody can bind Human FGF acidic, Tag Free with an affinity constant of 55.9 nM as determined in a SPR assay (Biacore 8K) (QC tested).
Purity	> 95 % SDS-PAGE. Purified by Immobilized metal affinity chromatography.
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	**P11362-7**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	RPSPTLPEQAQPWGAPVEVESFLVHPGDLLQLRCRLRD DVQSINWLRDGV QLAESNRTRITGEEVEVQDSVPADSGLYACVTSSPSGSD TTYFSVNVSDA LPSSEDDDDDDDSSSEEKETDNTKPNPVAPYWTSPEKM EKKLHAVPAAKT VKFKCPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRYAT WSIIMDSVVPS DKGNYTCIVENEYGSINHTYQLDVVERSPHRPILQAGLPAN KTVALGSNV EFMCKVYSDPQPHIQWLKHIEVNGSKIGPDNLPYVQILKTA GVNTTDKEM EVLHLRNVSFEDAGEYTCLAGNSIGLSHHSAWLTVLEALE ERPAVMTSPL YLEII
Predicted molecular weight	41 kDa including tags
Amino acids	22 to 376
Tags	His tag C-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab168696** in the following tested applications.

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

Applications	ELISA Functional Studies SDS-PAGE
Form	Lyophilized

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.40 Constituents: PBS, 10% Trehalose Lyophilized from 415 µL bulk protein in a 0.2 µm filtered solution. This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	It is strongly recommended to reconstitute the lyophilized protein with 333 µL sterile deionized water to a stock solution of 600 µg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Avoid vigorous shaking or vortexing.

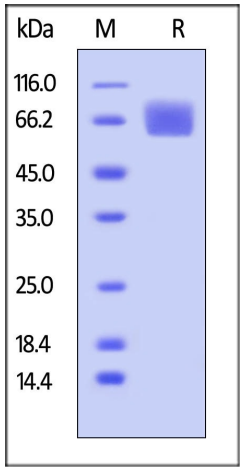
General Info

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



SDS-PAGE of reduced ab168696 stained overnight with Coomassie Blue. The protein migrates to 60-90 kDa under reducing conditions due to glycosylation.

SDS-PAGE - Recombinant human FGFR1 protein (Active) (ab168696)

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