

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FGF-12 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) FGF-13B is observed, 10% cross-reactivity with rhFGF-11 is observed and less than 1% cross-reactivity
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human FGF-12 Glu67-Thr243 Accession # P61328
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Fibroblast growth factor 12 (FGF-12) is a member of the FGF superfamily of molecules which contains at least 22 members. The FGFs are characterized by the presence of a core, 120 amino acid (aa) β -trefoil structure, and all apparently bind heparin (1, 2). FGF-11, -12, -13, -14, originally termed FGF homologous factors (FHF) -3, -1, -2, -4, respectively, form a subgroup within the FGF family (1, 3). Human FGF-12/FHF-1 is synthesized as a 243 aa protein. It lacks a typical signal sequence and is considered to be a cytoplasmic protein. It does, however, possess an N-terminal bipartite nuclear localization signal (NLS) at aa 11-18 and 28-38 (4-6). The 243 aa protein has at least one alternate splice form that is 181 aa in length. This is termed FGF-12B. Alternate splicing deletes the N-terminal 66 aa in FGF-12 and replaces them with four aa in FGF-12B. This substitution removes the NLS from the short form. Studies on the short form (12B) show that it cannot bind any of the common FGF receptors. This is consistent with its cytoplasmic localization. It can, however, bind to IB2 (islet brain-2), a cellular kinase scaffold protein, and voltage-gated sodium channels, suggesting FGF-12B plays an important role in intracellular signaling and ion exchange (7). Mouse and human FGF-12B differ by only one amino acid.

PRODUCT SPECIFIC NOTICES

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