Human FGF-12 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2246

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 with rhFGF acidic, rhFGF basic, rhFGF-3, rhFGF-4, rhFGF-6, rhFGF-7, rhFGF-9, rhFGF-10, rhFGF-16, rhFGF-17, rhFGF-18, rhFGF-19, rhFGF-20, rhFGF-23, recombinant mouse (rm) FGF-15, and rmFGF-8b is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human FGF-12 Glu67-Thr243 Accession # P61328
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human FGF-12 (Catalog # 2246-FG)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

References:

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