Mouse FGF-10 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6224

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse and human FGF-10 in Western blots. In direct ELISAs, approximately 100% cross-reactivity with recombinant rat FGF-10 is observed and less than 10% cross-reactivity with recombinant mouse FGF-6 and recombinant mouse FGF-7 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse FGF-10 Ser62-Thr209 Accession # NP_032028
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.

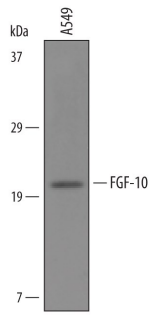
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

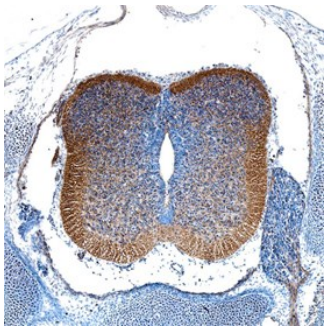
DATA

Western Blot



Detection of Human FGF-10 by Western Blot. Western blot shows lysates of A549 human lung carcinoma cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse FGF-10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6224) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for FGF-10 at approximately 20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



FGF-10 in Mouse Embryo. FGF-10 was detected in immersion fixed frozen sections of mouse embryo (E13) using Sheep Anti-Mouse FGF-10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6224) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to developing spinal cord. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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.

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BACKGROUND

The Fibroblast Growth Factors (FGFs) are heparin binding glycoproteins that exert a variety of biological activities toward cells of mesenchymal, neuronal, and epithelial origin. FGF-10 belongs to the subgroup of FGFs that also includes FGF-3, -7, and -22 (1). Mature mouse FGF-10 is an approximately 20 kDa protein that contains a serine-rich region near its N-terminus (2, 3). C-terminal to this region (aa 62-209), it shares 94% and 100% amino acid sequence identity with human and rat FGF-10, respectively. FGF-10 is secreted by mesenchymal cells and associates with extracellular FGF-BP (1, 4). It preferentially binds and activates epithelial cell FGF R2 (IIIb) and interacts more weakly with FGF R1 (IIIb) (5). The mitogenic and chemotactic properties of FGF-10 are critical in many tissues during embryogenesis. This includes limb bud initiation (6), palate development (7), branching morphogenesis and directional outgrowth of lung buds (2, 8), formation of the otic vesicle and chochlea (9), adipogenesis (10), and the development of prostate, mammary, lacrimal, and submandibular salivary glands (11-14). FGF R2 (IIIb) signaling in these responsive tissues is similarly important during embryogenesis (7, 9, 12-14). The expression and function of FGF-10 are negatively regulated by Shh and BMP-4 in the developing lung (2, 8). Overlapping expression patterns and activities with FGF-3, -7, and -8 suggest at least a partial redundancy in FGF-10 biology (7, 9, 13, 14). FGF-10 induced signaling through FGF R2 (IIIb) also contributes to the progression of pancreatic cancer (15).

References:

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