

**DESCRIPTION**

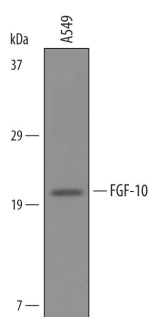
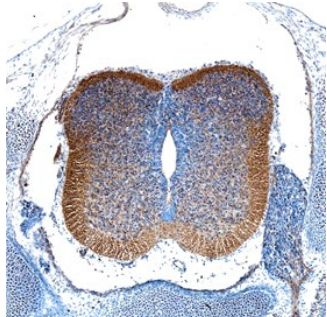
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse and human FGF-10 in Western blots. In direct ELISAs, approximately 100% cross-reactivity with recombinant rat FGF-10 is observed, and approximately 10% cross-reactivity with recombinant human FGF-19 and recombinant mouse FGF-6 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse FGF-10 Ser62-Thr209 Accession # NP_032028
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p>  <p><b>Detection of Human FGF-10 by Western Blot.</b> 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.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>FGF-10 in Mouse Embryo.</b> 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 &amp; 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.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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 cochlea (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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