

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human FGF-5 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) FGF acidic, rhFGF basic, rhFGF-3, -4, -6, -7, -9, -10, -11, -12, -13, -16, -17, -18, -19, recombinant mouse FGF-8b, -8c, or -15 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 221907
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human FGF-5 long isoform Glu23-Gly268 (Lys238Asn, Pro245Ser) Accession # Q8NF90
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

## 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	Recombinant Human FGF-5 (Catalog # 237-F5)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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 FGF family is comprised of at least seven polypeptides that are potent regulators of cell proliferation, differentiation and function. All FGFs have two conserved cysteine residues and share 30-50% sequence homology at the amino acid level. FGF-5 was originally identified as a transforming gene by the NIH-3T3 focus formation assay using DNA derived from human tumors. FGF-5 cDNA encodes a 267 amino acid residue protein with a putative 22 amino acid residue signal peptide. The murine homologue of FGF-5 was cloned and found to be 84% homologous to the human protein at the amino acid sequence level. Human and murine FGF-5 exhibit cross species activity.

*In vitro*, recombinant human FGF-5 is a mitogen for Balb/3T3 fibroblasts and bovine heart endothelial cells. FGF-5 was also reported to be a major muscle-derived survival factor for cultured spinal motoneurons. *In vivo*, FGF-5 is suggested to play important roles in both embryology and neurobiology. Developmentally, FGF-5 mRNA is initially found in the embryoblast followed by the lateral somatic mesoderm, where it may play a role in angiogenesis, plus the myotomes cranial to the tail region, where it may delay terminal myoblast differentiation during cell migration. FGF-5 continues to impact muscle post-natally where it is believed to function as a target-derived neurotrophic factor of skeletal muscle. In the nervous system, FGF-5 has been most often identified in neurons associated with the limbic system, notably in neurons of the olfactory bulb and pyramidal cells of the hippocampus. Hippocampal FGF-5 is suggested to serve as a neurotrophic and differentiative factor for cholinergic and serotonergic neurons projecting to this region.