

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse GDF-5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 25% cross-reactivity with recombinant mouse (rm) GDF-6 is observed, and less than 5% cross-reactivity with rmGDF-1, rmGDF-3, rmGDF-8, rmGDF-9, r
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse GDF-5 Ala376-Arg495 Accession # P43027
<b>Conjugate</b>	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
<b>Formulation</b>	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.

<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Growth Differentiation Factor 5 (GDF-5), also known as cartilage-derived morphogenetic protein 1 (CDMP-1), is a member of the bone morphogenetic protein (BMP) family which belongs to the transforming growth factor  $\beta$  (TGF- $\beta$ ) superfamily. GDF-5 is synthesized as a large precursor protein that consists of an N-terminal 19 amino acid (aa) signal sequence, a 362 aa pro region, and a 120 aa C-terminal mature peptide. Mature GDF-5 is a homodimeric protein which contains the characteristic seven conserved cysteine residues. GDF-5, GDF-6, and GDF-7, which share 80-86% identity, define a new subgroup within the BMP family. Like other TGF- $\beta$  superfamily proteins, GDF-5 is highly conserved across species. At the amino acid sequence level, mature human and mouse GDF-5 are 98% identical. It has been reported that GDF-5 has multiple functions including regulation of myogenesis, regulation of chondrogenesis, bone morphogenesis, and neuron differentiation and survival. GDF-5 response is mediated by the formation of hetero-oligomeric complexes of type I (BMPRI-B) and type II (BMPRII or Activin R-II) serine/threonine kinase receptors, and the activation of Smad proteins (Smad 1, 5, and 8).

#### PRODUCT SPECIFIC NOTICES

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