

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                         |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse GDF-6/BMP-13 in direct ELISAs.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                     |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant mouse GDF-6/BMP-13<br>Thr335-Arg454<br>Accession # P43028 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 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.

**Immunohistochemistry** 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 6 (GDF-6), also known as bone morphogenetic protein 13 (BMP-13) or cartilage-derived morphogenetic protein 2 (CDMP-2), is a member of the bone morphogenetic protein (BMP) family which belongs to the transforming growth factor  $\beta$  (TGF- $\beta$ ) superfamily. The mature GDF-6 with 120 amino acids is a homodimeric protein containing 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-6 is highly conserved across species. At the amino acid sequence level, human and mouse GDF-6 are 99% identical. It has been reported that GDF-6 has multiple functions including regulation of myogenesis, regulation of chondrogenesis, bone morphogenesis, and neuron differentiation and survival. GDF-6 response is mediated by the formation of hetero-oligomeric complexes of type I (BMPRI-IB) and type II (BMPRII or Activin R-II) serine/threonine kinase receptors, and the activation of Smad proteins (Smad 1, 5, and 8).

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