

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse GDF-6/BMP-13 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse GDF-6/BMP-13 Thr335-Arg454 Accession # P43028
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.

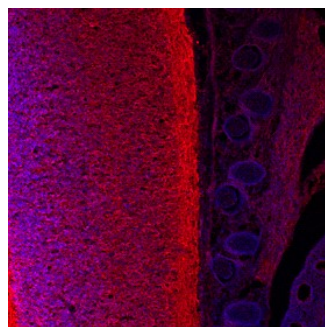
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



GDF-6/BMP-13 in Mouse Embryo. GDF-6/BMP-13 was detected in immersion fixed frozen sections of mouse embryo (E13.5) using Sheep Anti-Mouse GDF-6/BMP-13 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF855) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to dorsal neural tube. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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. <ul style="list-style-type: none"> 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.

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 β (TGF-β) 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-β 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-B) and type II (BMPRII or Activin R-II) serine/threonine kinase receptors, and the activation of Smad proteins (Smad 1, 5, and 8).

References:

- Storm, E.E. *et al.* (1994) *Nature* **368**:639.
- Nishitoh, H. *et al.* (1996) *J. Biol. Chem.* **271**:21345.
- Francis-West, P.H. *et al.* (1999) *Development* **126**:1035.
- Massague, J. *et al.* (2000) *Genes and Dev.* **14**:627.
- Inada, M. *et al.* (1996) *BBRC*, **222**:317.
- Settle, S.H., Jr. *et al.* (2003) *Dev. Biol.* **254**:116.