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GDF6 Antibody
Catalog # ASC10726

Specification

GDF6 Antibody - Product Information

Application	**WB**
Primary Accession	Q6KF10
Other Accession	NP_001001557, 48475062
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**GDF6 antibody can be used for detection of GDF6 by Western blot at 0.5 to 1 µg/mL.**

GDF6 Antibody - Additional Information

Gene ID	**392255**

Target/Specificity
GDF6;

Reconstitution & Storage
GDF6 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
GDF6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GDF6 Antibody - Protein Information

Name GDF6

Synonyms BMP13, GDF16

Function
Growth factor that controls proliferation and cellular differentiation in the retina and bone formation. Plays a key role in regulating apoptosis during retinal development. Establishes dorsal-ventral positional information in the retina and controls the formation of the retinotectal map (PubMed:23307924). Required for normal formation of bones and joints in the limbs, skull, digits and axial skeleton. Plays a key role in establishing boundaries between skeletal elements during development. Regulation of GDF6 expression seems to be a mechanism for evolving species-specific changes in skeletal structures. Seems to positively regulate differentiation of chondrogenic tissue through the growth factor receptors subunits BMPR1A, BMPR1B, BMPR2 and ACVR2A, leading to the activation of SMAD1- SMAD5-SMAD8 complex. The regulation of chondrogenic differentiation is inhibited by NOG (PubMed:26643732). Also involved in the induction of adipogenesis from

mesenchymal stem cells. This mechanism acts through the growth factor receptors subunits BMPR1A, BMPR2 and ACVR2A and the activation of SMAD1-SMAD5-SMAD8 complex and MAPK14/p38 (By similarity).

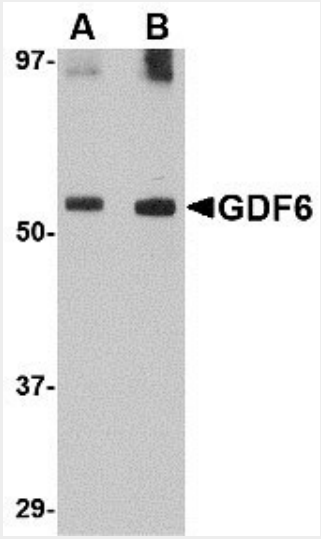
Cellular Location
Secreted.

GDF6 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GDF6 Antibody - Images



Western blot analysis of GDF6 in SK-N-SH lysate with GDF6 antibody at (A) 0.5 and (B) 1 µg/mL.

GDF6 Antibody - Background

GDF6 Antibody: Growth differentiation factors (GDFs) are members of the transforming growth factor (TGF) superfamily that is involved in embryonic development and adult tissue homeostasis. Both GDF6 and GDF7 are closely related to GDF5 which has been shown to induce activation of plasminogen activator, thereby inducing angiogenesis. It is predominantly expressed in long bones during fetal embryonic development and is involved in bone formation. In Xenopus, GDF6 is expressed at the edge of the neural plate and within the anterior neural plate including the eye fields. GDF6 is required for normal formation of some bones and joints in the limbs, skull, and axial skeleton. It may regulate patterning of the ectoderm by interacting with bone morphogenetic proteins (BMPs), and control eye development. Mutations in this gene result in colobomata, which are congenital abnormalities in ocular development, and in Klippel-Feil syndrome (KFS), a congenital disorder of spinal segmentation.

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Massague J. 1990. The transforming growth factor-beta family. Ann. Rev. Cell Biol.6:597-641.
McPherron AC, Lawler AM, and Lee SJ. Regulation of skeletal muscle mass in mice by a new TGF-beta superfamily member. Nature1997; 387:83-90.
Hanel ML and Hensey C. Eye and neural defects associated with loss of GDF6. BMC Dev. Biol.2006; 6:43.
Settle SH Jr., Rountree RB, Sinha A, et al. Multiple joint and skeletal patterning defects caused by single and double mutations in the mouse Gdf6 and Gdf5 genes. Dev. Biol.2003; 254:116-130.