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GDF5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12038b

Specification

GDF5 Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P43026
Other Accession	P43027, NP_000548.1
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**55395**
Antigen Region	**343-371**

GDF5 Antibody (C-term) - Additional Information

Gene ID 8200

Other Names
Growth/differentiation factor 5, GDF-5, Bone morphogenetic protein 14, BMP-14, Cartilage-derived morphogenetic protein 1, CDMP-1, Lipopolysaccharide-associated protein 4, LAP-4, LPS-associated protein 4, Radotermin, GDF5, BMP14, CDMP1

Target/Specificity
This GDF5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 343-371 amino acids from the C-terminal region of human GDF5.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GDF5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GDF5 Antibody (C-term) - Protein Information

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Name GDF5

Synonyms BMP14, CDMP1

Function Growth factor involved in bone and cartilage formation. During cartilage development regulates differentiation of chondrogenic tissue through two pathways. Firstly, positively regulates differentiation of chondrogenic tissue through its binding of high affinity with BMPR1B and of less affinity with BMPR1A, leading to induction of SMAD1-SMAD5-SMAD8 complex phosphorylation and then SMAD protein signaling transduction (PubMed:15530414, PubMed:21976273, PubMed:24098149, PubMed:25092592). Secondly, negatively regulates chondrogenic differentiation through its interaction with NOG (PubMed:21976273). Required to prevent excessive muscle loss upon denervation. This function requires SMAD4 and is mediated by phosphorylated SMAD1/5/8 (By similarity). Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:11276205).

Cellular Location
Secreted. Cell membrane

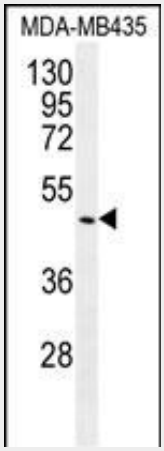
Tissue Location
Predominantly expressed in long bones during embryonic development. Expressed in monocytes (at protein level)

GDF5 Antibody (C-term) - 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

GDF5 Antibody (C-term) - Images



GDF5 Antibody (C-term) (Cat. #AP12038b) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the GDF5 antibody detected the GDF5 protein (arrow).

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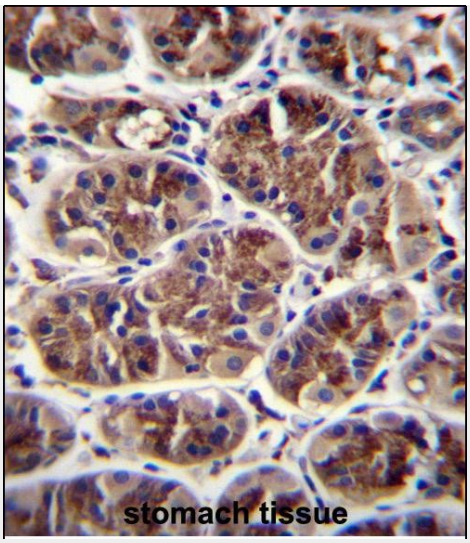

GDF5 Antibody (C-term) (Cat. #AP12038b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GDF5 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

GDF5 Antibody (C-term) - Background

The protein encoded by this gene is a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site which is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Mutations in this gene are associated with acromesomelic dysplasia, Hunter-Thompson type; brachydactyly, type C; and chondrodysplasia, Grebe type. These associations confirm that the gene product plays a role in skeletal development.

GDF5 Antibody (C-term) - References

Posthumus, M., et al. Rheumatology (Oxford) 49(11):2090-2097(2010)
Rouault, K., et al. Osteoarthr. Cartil. 18(9):1144-1149(2010)
Zintzaras, E., et al. Am. J. Epidemiol. 171(8):851-858(2010)
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