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GDF5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12038b

Product Information

Application	WB, IHC-P, E
Primary Accession	P43026
Other Accession	P43027, NP_000548.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31942
Calculated MW	55395
Antigen Region	343-371

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	WB~~1:1000 IHC-P~~1:100~500 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.

Protein Information

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)

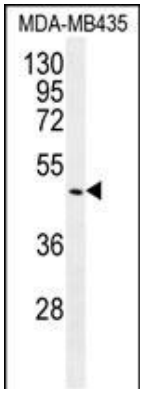
Background

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.

References

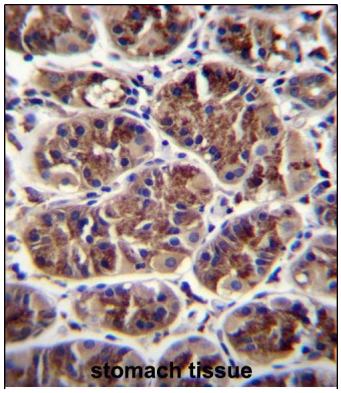
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Images



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).

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.