

**GDF-5 Polyclonal Antibody**  
Catalog # AP73485**Specification****GDF-5 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P43026</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**GDF-5 Polyclonal Antibody - Additional Information****Gene ID** 8200**Other Names**

GDF5; CDMP1; Growth/differentiation factor 5; GDF-5; Cartilage-derived morphogenetic protein 1; CDMP-1; Radotermin

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1/100-1/300. ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**GDF-5 Polyclonal Antibody - 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:<a href="http://www.uniprot.org/citations/15530414" target="\_blank">15530414</a>, PubMed:<a href="http://www.uniprot.org/citations/21976273" target="\_blank">21976273</a>, PubMed:<a href="http://www.uniprot.org/citations/24098149" target="\_blank">24098149</a>, PubMed:<a href="http://www.uniprot.org/citations/25092592" target="\_blank">25092592</a>). Secondly, negatively regulates chondrogenic differentiation through its interaction with NOG (PubMed:<a href="http://www.uniprot.org/citations/21976273" target="\_blank">21976273</a>). 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:<a href="http://www.uniprot.org/citations/11276205" target="\_blank">11276205</a>).

#### Cellular Location

Secreted. Cell membrane

#### Tissue Location

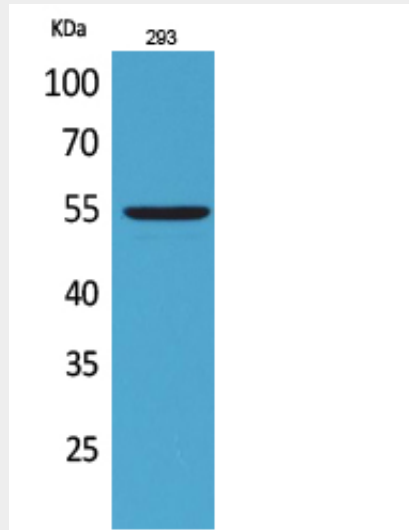
Predominantly expressed in long bones during embryonic development. Expressed in monocytes (at protein level)

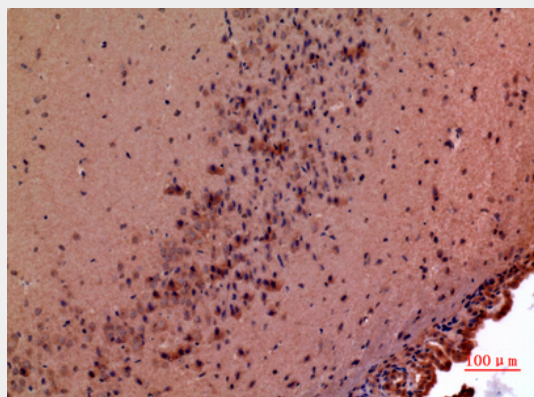
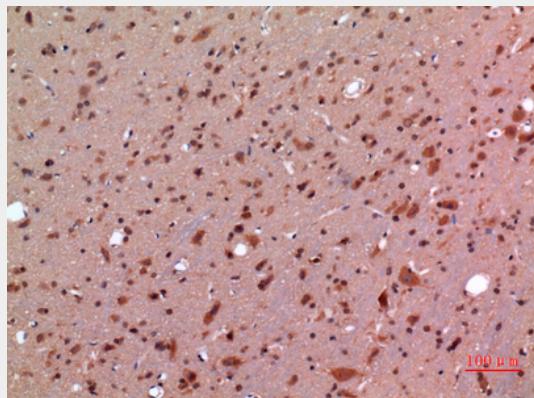
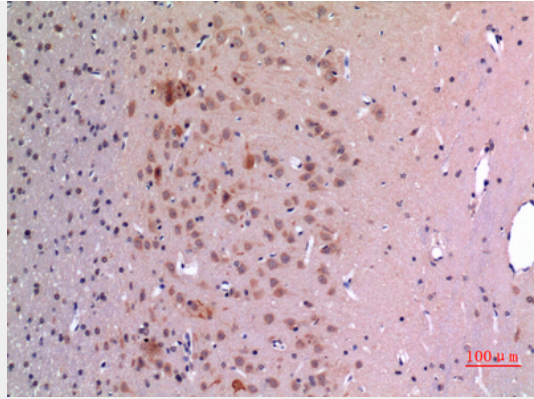
### GDF-5 Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### GDF-5 Polyclonal Antibody - Images





### **GDF-5 Polyclonal Antibody - Background**

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:24098149, PubMed:21976273, PubMed:15530414, 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).