

# GDF-5 Polyclonal Antibody

Catalog # AP73485

## Product Information

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<b>Application</b>	WB, IHC-P, IF, ICC, E
<b>Primary Accession</b>	<a href="#">P43026</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	55395

## Additional Information

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<b>Gene ID</b>	8200
<b>Other Names</b>	GDF5; CDMP1; Growth/differentiation factor 5; GDF-5; Cartilage-derived morphogenetic protein 1; CDMP-1; Radotermin
<b>Dilution</b>	WB--Western Blot: 1/500 - 1/2000. IHC-p: 1/100-1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P--Western Blot: 1/500 - 1/2000. IHC-p: 1/100-1/300. ELISA: 1/20000. Not yet tested in other applications. IF--1:50~200 ICC--N/A E--N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

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<b>Name</b>	GDF5
<b>Synonyms</b>	BMP14, CDMP1
<b>Function</b>	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="#">15530414</a> , PubMed: <a href="#">21976273</a> , PubMed: <a href="#">24098149</a> , PubMed: <a href="#">25092592</a> ). Secondly, negatively regulates chondrogenic differentiation through its interaction with NOG (PubMed: <a href="#">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:[11276205](#)).

**Cellular Location**

Secreted. Cell membrane

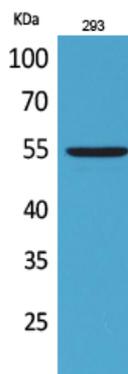
**Tissue Location**

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

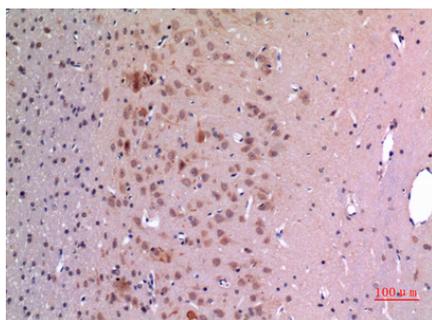
**Background**

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](#)).

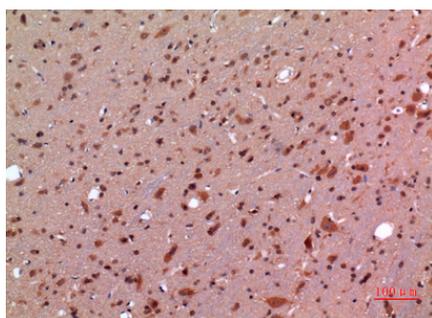
**Images**



Western Blot analysis of 293 cells using GDF-5 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

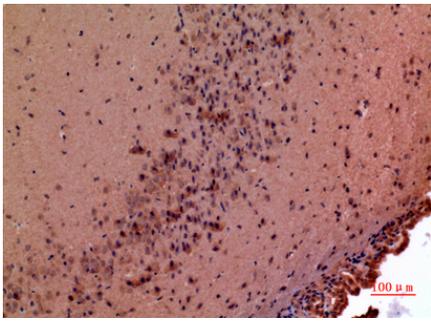


Immunohistochemical analysis of paraffin-embedded rat-brain, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded rat-brain, antibody was diluted at 1:100

Immunohistochemical analysis of paraffin-embedded mouse-brain, antibody was diluted at 1:100



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