

**BMP-14 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11010****Specification**

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**BMP-14 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P43026</a>
Other Accession	<a href="#">EAW76208</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	55395

**BMP-14 Antibody - Additional Information****Gene ID** 8200

Positive Control	<b>Western Blot: Recombinant human BMP-14</b>
Application & Usage	<b>IHC: Brain and Cortex tissue</b> <b>Western blot analysis (0.5-4 µg/ml) and Immunohistochemistry (5 µg/ml). However, the optimal conditions should be determined individually. Recombinant human BMP-14 can be used as a positive control.</b>

**Other Names**

BMP14, BMP-14, BMP 14, bone morphogenetic protein 14, BMP

**Target/Specificity**

BMP-14

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit anti-human BMP-14 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 1% BSA, 0.02% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

BMP-14 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**BMP-14 Antibody - Protein Information**

**Name** GDF5

**Synonyms** BMP14, CDMPI

**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/24098149" target="\_blank">24098149</a>, PubMed:<a href="http://www.uniprot.org/citations/21976273" target="\_blank">21976273</a>, PubMed:<a href="http://www.uniprot.org/citations/15530414" target="\_blank">15530414</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)

**BMP-14 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](#)

**BMP-14 Antibody - Images****BMP-14 Antibody - Background**

BMPs (bone morphogenetic proteins) belong to the TGF- $\beta$  superfamily of structurally related signaling proteins. As implied by their name, BMPs promote and regulate bone development,

growth, remodeling and repair, in both prenatal development and postnatal growth of eye, heart, kidney, skin, and other tissues. In addition to its osteogenic activity, BMP-14 is a principal inhibitor of cartilage development and is predominantly expressed in long bone during human embryonic development.