

Bmp5 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1716a**Specification**

Bmp5 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P22003](#)**Bmp5 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 653**Other Names**

Bone morphogenetic protein 5, BMP-5, BMP5

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1716a](/product/products/AP1716a) was selected from the N-term region of human Bmp5. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Bmp5 Antibody (N-term) Blocking Peptide - Protein Information**Name** BMP5**Function**

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including cartilage and bone formation or neurogenesis (PubMed: [11580864](http://www.uniprot.org/citations/11580864), PubMed: [29321139](http://www.uniprot.org/citations/29321139)). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPRI1 and type II receptor BMPRI2 (PubMed: [11580864](http://www.uniprot.org/citations/11580864)). In turn, BMPRI1 propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes (PubMed: [29321139](http://www.uniprot.org/citations/29321139), PubMed: [11580864](http://www.uniprot.org/citations/11580864)). Can also signal through non-canonical pathway such as MAPK p38 signaling cascade to promote chondrogenic differentiation (PubMed: [11580864](#)).

[20402566](http://www.uniprot.org/citations/20402566)). Promotes the expression of HAMP, this is repressed by its interaction with ERFE (PubMed:[30097509](http://www.uniprot.org/citations/30097509)).

Cellular Location

Secreted.

Tissue Location

Expressed in the lung and liver.

Bmp5 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

Bmp5 Antibody (N-term) Blocking Peptide - Images**Bmp5 Antibody (N-term) Blocking Peptide - Background**

Bmp5 is a member of the bone morphogenetic protein family which is part of the transforming growth factor-beta superfamily. The superfamily includes large families of growth and differentiation factors. Bone morphogenetic proteins were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. These proteins are synthesized as prepropeptides, cleaved, and then processed into dimeric proteins. This protein may act as an important signaling molecule within the trabecular meshwork and optic nerve head, and may play a potential role in glaucoma pathogenesis. This gene is differentially regulated during the formation of various tumors.

Bmp5 Antibody (N-term) Blocking Peptide - References

Luo, J., et al., Prostate 51(3):189-200 (2002). Jin, Y., et al., Histol. Histopathol. 16(4):1013-1019 (2001). Sakaue, M., et al., Biochem. Biophys. Res. Commun. 221(3):768-772 (1996). Hahn, G.V., et al., Genomics 14(3):759-762 (1992). Celeste, A.J., et al., Proc. Natl. Acad. Sci. U.S.A. 87(24):9843-9847 (1990).