Human BMP-6 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF507

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BMP-6 in ELISAs and Western blots. In sandwich immunoassays, less than 4% cross-reactivity with recombinant human (rh) BMP-5 is observed and less than 0.5% cross-reactivity with rhBMP-2, rhBMP-4, rhBMP-7, rhBMP-8, rhTGF-β1, rhTGF-β2, and rhTGF-β3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human BMP-6 (R&D Systems, Catalog # 507-BP) Gln382-His513 Accession # P22004
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human BMP-6 (Catalog # 507-BP)
Human BMP-6 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human BMP-6 Antibody (Catalog # MAB507)
ELISA Detection	0.1-0.4 µg/mL	Human BMP-6 Biotinylated Antibody (Catalog # BAF507)
Standard		Recombinant Human BMP-6 (Catalog # 507-BP)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human BMP-6 is one of at least 15 structurally and functionally related BMPs, which are members of the transforming growth factor β (TGF-β) superfamily. BMPs were originally identified as protein regulators of cartilage and bone formation. However, they have since been shown to be involved in embryogenesis and morphogenesis of various tissues and organs. BMPs have also been shown to regulate the growth, differentiation, chemotaxis and apoptosis of various cell types, including mesenchymal cells, epithelial cells, hematopoietic cells and neuronal cells. Similarly to other TGF-β family proteins, BMPs are highly conserved across animal species. At the amino acid sequence level, mature human and mouse BMP-6 shares 96% amino acid sequence identity. BMP-6 is synthesized as a large precursor protein that is cleaved at the dibasic cleavage site (RXXR) to release the carboxy-terminal domain. Biologically active BMP-6 is a disulfide-linked homodimer of the carboxy-terminal 132 amino acid residues that contains the characteristic seven conserved cysteine residues involved in the formation of the cysteine knot and the single interchain disulfide bond. Cellular responses to BMP-6 have been shown to be mediated by the formation of hetero-oligomeric complexes of type I and type II serine/threonine kinase receptors. Based on amino acid sequence similarity, BMP-5, -6, -7 and -8 are in the same subgroup.

References:

1. Ebendal, T. *et al.* (1998) J. Neurosci. Res. **51:**139.
2. Reddi, A.H. (1998) Nature Biotechnology **16**:247.

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