Human BMP-8 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1073N
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BMP-8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) BMP-2, rhBMP-3, rhBMP-4, rhBMP-5, rhBMP-6 and rhBMP-7 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human BMP-8a Ala264-His402 Accession # AAP74559
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

BMP-8, also known as osteogenic protein 2 (OP-2), was first isolated from a hippocampal library in a screen to identify relatives of BMP-7 (OP-1) (1). BMPs are a family of structurally and functionally related proteins and represent a subfamily of the transforming growth factor β (TGF-β) superfamily. BMPs were originally identified as protein regulators of cartilage and bone formation. They have since been shown to be involved in embryogenesis and morphogenesis of various tissues and organs (2). BMPs play roles in regulating growth, differentiation, chemotaxis, and apoptosis of various cell types, including mesenchymal, epithelial, hematopoetic, and neuronal cells.

There exist two highly related and closely linked genes, designated BMP-8a and -8b in mice and humans. For humans, the protein products of these two genes share 98% amino acid (aa) sequence identity in their pro- and mature regions. However in the mouse, the two proteins share 89% and 76% aa sequence homology in their pro- and mature regions, respectively (3). Mature human BMP-8a shares 91% and 70% aa sequence identity with mouse BMP-8a and -8b, respectively. Human BMP-8a is synthesized as a large precursor protein that is cleaved at a dibasic cleavage site (RTPR) between aa residues 263 and 264 to release a 139 aa carboxy-terminal domain. Expression patterns of the BMP-8 genes indicate that they regulate aspects of cell proliferation and/or differentiation during spermatogenesis and formation of the placenta (3). BMP-8 is also highly expressed in osteosarcomas (4).

PRODUCT SPECIFIC NOTICES

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