

Recombinant Human BMP-5 (Bone Morphogenetic Protein-5)

Product Description

TGF beta family members are key modulators of cell proliferation, differentiation, matrix synthesis, and apoptosis. As implied by their name, BMPs initiate, promote, and regulate the development, growth, and remodeling of bone and cartilage. In addition to this role, BMPs are also involved in prenatal development and postnatal growth, remodeling, and maintenance of a variety of other tissues and organs. BMP-5 is expressed in the nervous system, lungs and liver. It is a known regulator for dendritic growth in sympathetic neurons. BMP-5 is a 454 amino acid precursor protein that is cleaved to release the biologically active C-terminal mature protein. Recombinant Human BMP-5 is a 31.2 kDa homodimeric disulfide-linked protein consisting of two identical 138 amino acid chains.

Typical Specifications

Species	Human
Expression	CHO Cell Expressed
Activity	Typically 0.5-1.0 µg/ml ED50
Purity	≥95%
Endotoxin	<1.0 EU/µg
Molecular Mass	31.2 kDa
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells.

AA Sequence

AANKRKNQNR	NKSSSHQDSS	RMSSVGDYNT
SEQKQACKKH	ELYVSFRDLG	WQDWIIAPEG
YAAFYCDGEC	SFPLNAHMNA	TNHAIVQTLV
HLMFPDHVPK	PCCAPTKLNA	ISVLYFDDSS
NVILKKYRNM	VVRSCGCH	

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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