

Recombinant Human BMP-10 (Bone Morphogenetic Protein-10)

Product Description

Bone morphogenetic proteins (BMPs) constitute a subfamily within the TGF- β superfamily of structurally related signaling proteins. Members of this superfamily are widely distributed throughout the body and are involved in diverse physiological processes during both pre- and postnatal life. BMP-10 plays a crucial role in the development of the embryonic heart by acting to stimulate and maintain cardiomyocyte proliferation. It can signal through various receptor complexes usually containing BMPR-1A, BMPR-1B, ALK1, ALK3, or ALK6. The interaction of BMP-10 with its specific receptors can induce signaling initiated by the phosphorylation of SMAD transcription factors, including SMAD1, SMAD5, or SMAD8, but can also induce SMAD independent processes. BMP-10 is structurally related to BMP-9, and both can inhibit endothelial cell proliferation and migration.

Typical Specifications

Species	Human
Expression	HEK293 Cell Expressed
Activity	Typically 4.0-6.0 ng/ml ED ₅₀
Purity	≥95%
Endotoxin	<1.0 EU/ μ g
Molecular Mass	24.4 kDa
Formulation	10mM Sodium Citrate, pH 2.7 + 75mM NaCl
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

NAKGN YCKRT	PLYIDFKEIG	WDSWIIAPPG
YEAYECRGVC	NYPLAEHLTP	TKHAIIQALV
HLKNSQKASK	ACCVPTKLEP	ISILYLDKGV
VTYKFKYEGM	AVSECGCR	

Reconstitution Buffer

Centrifuge the vial prior to opening.
Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

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

Unless otherwise stated in our catalog or other company documentation accompanying the product, products sold by HumanZyme, Inc. are intended for research use only and are not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, including resale or use in manufacture, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses or any type of consumption or application to humans or animals. For a complete statement of this Limited Use License and its application to drug discovery and diagnostic research, please visit www.humanzyme.com.