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Catalog Number: HZ-1229

Data Sheet

HumanKine® BMP-7 (Recombinant Human)

Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free

Product Description

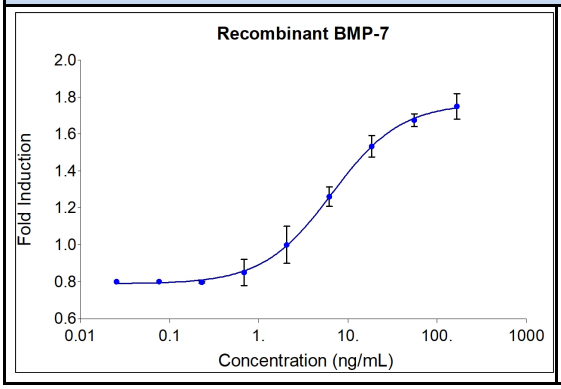
Animal-free Recombinant Human BMP-7 is expressed in human 293 cells as a disulfide linked homodimeric glycoprotein with an apparent molecular mass of 29 kDa. This cytokine is produced in a serum-free, chemically defined media. Recombinant Human BMP-7 is a homodimeric glycoprotein consisting of two 117 amino acid subunits, which correspond to amino acid residues 315 to 431 of the full-length BMP-7 precursor. The protein encoded by this gene is a member of the TGF-beta superfamily. Like other members of the Bone Morphogenetic Protein family of proteins, it plays a key role in the transformation of mesenchymal cells into bone and cartilage.

Alternative Names	BMP 7, BMP7, BMP-7, bone morphogenetic protein 7, Eptotermin alfa, HZ1229, OP 1, OP1, Osteogenic protein 1
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived BMP-7 protein

Specifications

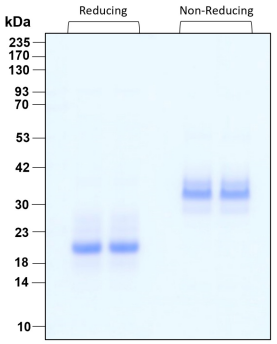
Test	Method	Specification
Activity	Dose-dependent induction of alkaline phosphatase production in the ATDC-5 cell line (mouse chondrogenic cell line)	50-275 ng/mL EC50
Molecular Mass	SDS-PAGE	20 kDa reduced, 32 to 36 kDa non-reduced, homodimer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/µg

Activity Data



Recombinant human BMP-7 (HZ-1229) stimulates dose-dependent induction of alkaline phosphatase production in the ATDC-5 mouse chondrogenic cell line. Alkaline phosphatase production was assessed using pNPP as a chromogenic substrate. ATDC-5 cells were treated with increasing concentrations of recombinant human BMP-7 for 72 hours before lysis and

SDS-PAGE



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Preparation	
Shipping Temperature	ambient temperature
Formulation	10mM Acetic Acid
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in 10mM Acetic Acid containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
Stability and Storage	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
	Avoid repeated freeze-thaw cycles.		

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