

HumanKine[®] recombinant human BMP-2 protein

Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

Product Description

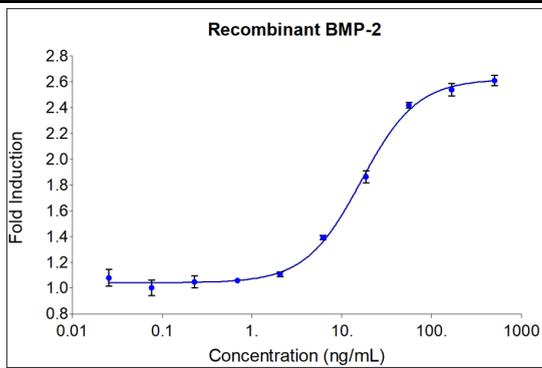
Animal-free Recombinant Human BMP-2 is expressed from human 293 cells as a disulfide linked homodimeric glycoprotein with an apparent molecular mass of 28 kDa. This cytokine is produced in a serum-free, chemically defined media. Production in human 293 cells offers authentic glycosylation, contributing to stability in cell growth media and other applications. BMPs (Bone Morphogenetic Proteins) belong to the TGF-beta superfamily of structurally related signaling proteins. BMP-2 is a potent osteoinductive cytokine, capable of inducing bone and cartilage formation in association with osteoconductive carriers such as collagen and synthetic hydroxyapatite.

Alternative Names	BMP 2, BMP 2A, BMP2, BMP-2, BMP2A, bone morphogenetic protein 2, Bone morphogenetic protein 2A
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived BMP-2 protein
Species Reactivity	human,mouse,rat

Specifications

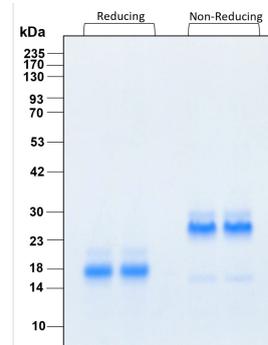
Test	Method	Specification
Activity (EC50)	Dose-dependent induction of alkaline phosphatase production in the ATDC-5 cell line (mouse chondrogenic cell line)	7.5-37.5 ng/mL
Molecular Mass	SDS-PAGE	17 kDa reduced, 28 kDa non-reduced, homodimer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

Activity Data



Recombinant human BMP-2 (HZ-1128) 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-2 for 72 hours before lysis and

SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	2x PBS + 6% Ethanol, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 4 mM HCl containing 0.1% endotoxin-free recombinant human serum albumin (HSA). Gently swirl or tap vial to mix.

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	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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