

## Catalog Number: HZ-1128

## **Data Sheet**



## HumanKine® BMP-2 (Recombinant Human)

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, BMP 2, BMP 2, BMP 2A, bone morphogenetic protein 2, Bone morphogenetic protein 2A

 Source
 Human Embryonic Kidney cells (HEK293). HEK293-derived BMP-2 protein

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

Activity Data	SDS-PAGE	
Recombinant BMP-2	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	kDa Reducing Non-Reducing 235 170 130 93 70 53 42 30 23 18 14 10 10

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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 in sterile 4 mM HCl containing 0.1% endotoxin-free recombinant human serum albumin (HSA).			

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)	
	Lyophilized	-20°C to -80°C	Until Expiry Date	
Stability and Storage	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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