

Recombinant Human BMP-4








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

Revision Date 06 May 2011

Catalog Number:	PHC9534	PHC9531	PHC9533
Quantity:	10 µg	100 µg	1mg
Lot Number:	See product label.		
Molecular Weight:	34 kDa, homo dimer, glycosylated.		
Purity:	> 95% as determined by SDS-PAGE analysis		
Biological Activity:	ED ₅₀ range = 2–10 ng/mL, determined by the dose dependent induction of alkaline phosphatase production in the ATDC-5 cell line (mouse chondrogenic cell line).		
Formulation:	Lyophilized in 50 mM sodium Acetate, pH 4.5, carrier free.		
Sterility:	Filtered prior to lyophilization through a 0.22 micron filter.		
Endotoxin:	< 1 EU/µg		
Production:	Recombinant human BMP-4 is expressed in human cell expression system and purified via sequential chromatography.		
Reconstitution Recommendation:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant human BMP-4 in 4 mM HCl containing 0.1% human serum albumin. Further dilutions should be made in low endotoxin medium or a buffered solution containing a carrier protein such as heat inactivated FCS or tissue culture grade BSA.		
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.		
Storage:	Store this lyophilized preparation at ≤ -20°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ -20°C. Avoid repeated freeze/thaw cycles.		
Expiration Date:	Expires one year from date of receipt when stored as instructed.		
References:	Chen, D., M. Zhao, and G. Mundy (2004) Bone Morphogenetic Proteins. <i>Growth Factors</i> 22:233–241. Nakamura, K., T. Shirai, S. Morishita, S. Uchida, K. Saeki-Miura, and F. Makishima (1999) p38 Mitogen-activated protein kinase functionally contributes to chondrogenesis induced by growth/differentiation factor-5 in ATDC5 cells. <i>Exp. Cell Research</i> 250:351–363.		

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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