Recombinant Human Bone Morphogenetic Protein 2 (BMP–2)

Catalog Number PHC7145 (10 µg), PHC7146 (25 µg), PHC7141 (100 µg), PHC7143 (1 mg)

Pub. No. MAN0003520 Rev. B.0

Product specifications

Lot number	See product label.
Molecular weight	26 kDa
Purity	>95% as determined by SDS PAGE analysis.
Amino acid sequence	QAKHKQRKRL KSSCKRHPLY VDFSDVGWND WIVAPPGYHA FYCHGECPFP LADHLNSTNH AIVQTLVNSV NSKIPKACCV PTELSAISML YLDENEKVVL KNYQDMVVEG CGCR
Biological activity	ED_{50} <1.00 µg/mL, determined by the dose dependent induction of alkaline phosphatase in mouse chondrogenic cell line ATDC52. Determine the optimal concentration for each specific application using an initial dose response assay.
Formulation	Lyophilized, carrier free.
Sterility	The protein is eluted in acetonitrile and then lyophilized under aseptic conditions.
Endotoxin	<0.1 ng/µg
Production	Produced in *E. coli* and purified by sequential chromatography.
Reconstitution recommendation	Centrifuge the vial briefly, before opening to bring the contents to the bottom. Reconstitute the lyophilized protein in sterile 20 mM acetic acid to a concentration of 0.1–1.0 mg/mL. Apportion the reconstituted protein into working aliquots and store at ≤ –20°C. Make any further dilutions of the reconstituted protein 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 the lyophilized protein at 2–8°C or –20°C for long term storage, 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	Wozney, JM, Rosen, V, Celeste, AJ, Mitsock, LM, Whitters, MJ, Kriz, RW, Hewick, RM, and Wang, EA. (1988) Novel Regulators of bone formation: molecular clones and activities. Science 242: 1528-1534. Nakamura, K, Shirai, T, Morishita, S, Uchida, S, Saeki-Miura, K, and Makishima, F. (1999) p38 mitogen-activated protein kinase functionally contributes to chondrogenesis induced by growth/differentiation factor-5 in ATDC5 cells. Experimental Cell Research 250: 351-363. Ruppert, R, Hoffmann, E, and Sebald, W. (1996) Human bone morphogenetic protein 2 contains a heparin-binding site which modifies its biological activity. Eur. J. Biochem. 237:295-302.

Limited product warranty

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Explanation of Symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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For descriptions of symbols on product labels or product documents, go to **thermofisher.com/symbols-definition**.

The information in this guide is subject to change without notice.