

Recombinant Human Bone Morphogenetic Protein 2 (rHuBMP-2)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	108-02
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 26.0 kDa, a homodimeric protein consisting of two 115 amino acid non-glycosylated polypeptide chains.
Quantity:	2µg/10µg/1000µg
AA Sequence:	MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 200 ng/ml, corresponding to a specific activity of > 5.0 × 10 ³ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution containing 10 mM sodium citrate pH 3.5.
Endotoxin:	Less than 1 EU/µg of rHuBMP-2 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled H₂O to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C . Further dilutions should be made in appropriate buffered solutions. Do not reconstitute in PBS or cell culture media.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Human Bone Morphogenetic Protein 2

Bone Morphogenetic Protein 2 is one of the BMPs, some of which belong to the TGF-beta superfamily (BMP2-7). There are more than thirteen BMPs have been discovered nowadays and they are involved in inducing cartilage and bone formation. BMP-2 is expressed in a variety of tissues including lung, spleen, brain, liver, prostate ovary and small intestine. It is a potent osteoinductive cytokine and plays its role in association with osteoconductive carriers such as collagen and synthetic hydroxyapatite. As it shown to stimulate the production of bone, the recombinant human BMP-2 is available for orthopaedic usage and dentistry. The functional form of BMP-2 is a disulfide-linked homodimer and about 26 kDa The precursor of BMP-2 is 259 a.a., containing the 23 a.a. N-terminal signal sequence which will be cleaved by a furin-type protease to form the mature peptide.