

# ChemWhat recombinant Human Bone Morphogenetic Protein 7 (rHuBMP-7)

A brand under Watson

## ChemWhat Technical Data Sheet (TDS)

<b>Catalog Number:</b>	108-07
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 15.7 kDa, a monomeric, non-glycosylated polypeptide chain containing 139 amino acids.
<b>Quantity:</b>	2µg/10µg/1000µg
<b>AA Sequence:</b>	STGSKQRSQN RSKTPKNQEA LRMANVAENS SSDQRQACKK HELYVSFRDL GWQDWIIAPE GYAAAYCEGE CAFPLNSYMN ATNHAIQVTL VHFNPETVP KPCCAPTQLN AISVLYFDDS SNVILKKYRN MVVRACGCH
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Data is not available.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 30 % acetonitrile, 0.1 % TFA.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuBMP-7 as determined by LAL method.
<b>Applications:</b>	1. Molecular standard (Western, ELISA) in studying secreted BMP-7; 2. Preparing antibodies for BMP-7 monomer; 3. Molecule standard in detecting secreted BMP-7 in reduced SDS-PAGE.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10 mM HAC to a concentration less than 0.2 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

### *Human Bone Morphogenetic Protein 7*

Bone Morphogenetic Protein 7 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-7 is mainly expressed in kidney and bladder. It is also present in developing eyes, brain and ear during embryogenesis. BMP-7 also named osteogenic protein-1 (OP-1) is a potent osteoinductive cytokine and plays role in osteoblast differentiation, SMAD1 production and renal development and repair. Human BMP-7 is synthesized with a signal sequence (29 a.a.), a propeptide (263 a.a.), and a growth factor domain (139 a.a.). The growth factor domain of human BMP-7 shares 98 % a.a. sequence identity with mouse and rat BMP-7.

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