

Recombinant Human Bone Morphogenetic Protein 3

#R00180

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Bone Morphogenetic Protein 3 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. BMPs were originally identified as protein regulators of cartilage and bone formation. They have since been shown to be involved in embryogenesis and morphogenesis of various tissues and organs. BMPs also regulate the growth, differentiation, chemotaxis, and apoptosis of various cell types. Similar to most other TGF-beta family proteins, BMPs are highly conserved across animal species. At the amino acid sequence level, mature human and rat BMP-3 are 98% identical.

AA Sequence

QWIEPRNCARRYLKVDFADIGWSEWIISPKSFDAYYC
SGACQFPMPKSLKPSNHATIQSIVRAVGVVPGIPEPC

CVPEKMSSSLILFFDENKNVVLKVYPNMTVESACR

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 4 mM HCl 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.

Product Specification

Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 24.8 kDa, a homodimeric protein consisting of two 110 amino acid non-glycosylated polypeptide chains.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by its ability to inhibit BMP-2-induced activity in murine MC3T3- E1 cells.
Physical Appearance	Sterile Filtered White Lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in

30 % Acetonitrile and 0.1 % TFA.

Endotoxin	Less than 1 EU/μg of rHuBMP-3 as determined by LAL method.
------------------	---
