



**PACIFIC COAST**  
BIOLOGICS

# Certificate of Analysis

## Animal Free Recombinant Human BMP-4

Catalog #: HBMP4  
Lot #: 240808  
Expiration: August 2029

### Amino Acid Sequence

KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKQNYQEMVV ECGGCR

### Product Specifications

- Purity >98% by SDS-PAGE gel and HPLC
- Endotoxin <0.1 EU/μg by the LAL method.
- Molecular Weight 23.9 kDa, as determined by MALDI-TOF mass spectrometry.
- Source: E.coli

### Manufacturing

Produced using non animal derived components in a dedicated animal-free facility.

### Formulation

- Sterile-filtered and lyophilized without any additives.

### Biological Activity

Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED50 for this effect is 10 ng/ml, corresponding to a specific activity of  $\geq 1 \times 10^5$  units/mg.

### Storage and Handling

#### Reconstitution

Centrifuge the vial briefly before opening. Reconstitute with RO/DI water to a final concentration of 0.1–1 mg/mL (0.1–1 μg/μL). Do not vortex after reconstitution. Avoid repeated freeze–thaw cycles. The lyophilized powder is stable at room temperature, but it is best stored below 0°C. Reconstituted human BMP-4 should be stored at –20°C.

#### Storage (Lyophilized Powder)

- 4°C: Stable for up to 12 months
- –20°C to –80°C: Recommended for long-term storage

Usage: For Research Use Only. Not for human use.

Country of Origin, USA

Director of QA/QC

*Ramon Roehin*

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