



# Technical Data Sheet / 技术说明书

## Recombinant Human BMP-4

### 重组人骨形态发生蛋白-4

**Catalog Number / 货号:** C015

**Host / 表达系统:** E. coli (大肠杆菌)

**Form / 性状:** Liquid (澄清透明液体)

**Regulatory Status:** For Research Use Only (仅供科研使用)

## 1. Product Overview / 产品概览

Feature / 特性	Specifications / 规格指标
Synonyms / 别名	BMP2B, BMP2B1, 骨形态发生蛋白 2B
Species / 种属	Human / 智人
UniProt / Gene ID	P12644 / 652
Molecular Weight / 分子量	~13 kDa
Concentration / 浓度	100 µg/mL
Purity / 纯度	> 98% as determined by SDS-PAGE
Endotoxin / 内毒素	< 0.5 EU/µg by LAL method (LAL 法)
Formulation / 组分	NaAc buffer with Mannitol (NaAc 缓冲液, 含甘露醇)

## 2. Biological Activity / 生物活性

- Assay Method:** Alkaline phosphatase activity assay using ATDC5 mouse chondrogenic cells.
- Performance:** The **ED<sub>50</sub>** is **< 20 ng/mL**, corresponding to a specific activity of **> 5.0 × 10<sup>4</sup> IU/mg**.
- 生物学活性:** 经 ATDC5 细胞检测, 其半数效应浓度 (ED<sub>50</sub>) < 20 ng/mL, 对应比活性高于 5.0 × 10<sup>4</sup> units/mg。

## 3. Amino Acid Sequence / 氨基酸序列

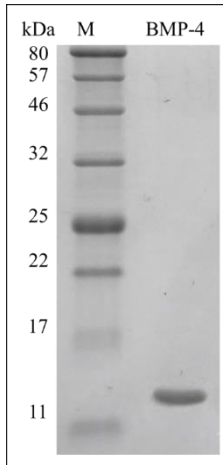
126 aa, Mature Human BMP-4 sequence:

SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY  
QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC



CVPTELSAIS MLYLDEYDKV VLKNYQEMVV E G C G C R

#### 4. Quality Control / 质量控制



- **SDS-PAGE Analysis:** Purity > 98%
- **SDS-PAGE 凝胶电泳图:** 纯度 > 98%

#### 5. Usage & Storage / 使用与储存

- **Storage (储存):**
  - **Unopened:** Stable for 12 months at -20°C. (-20°C 下稳定保存一年)
  - **Opened/Diluted:** Aliquot and store at -20°C or -80°C for long-term stability. Avoid repeated freeze-thaw cycles. (分装并在 -20°C 以下保存, 避免反复冻融)
- **Handling (使用指导):**
  - Centrifuge the vial briefly before opening. (使用前请先离心)
  - It is recommended to dilute in PBS containing **0.1% BSA** or **Human Serum Albumin (HSA)** to maintain protein stability. (建议使用含 0.1% BSA 或人血白蛋白的 PBS 进行稀释)
  - Avoid diluting to a final concentration of less than **50 µg/mL**. (避免稀释至 50 µg/mL 以下分装保存)

#### 6. Contact & Support / 联系方式

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