

Recombinant Human Basic Fibroblast Growth Factor (bFGF)

Catalog Number: OM770037

Product Introduction

Recombinant human basic fibroblast growth factor (bFGF) is a member of the fibroblast growth factor family. Evidence has shown that bFGF can support the stem cell characteristics of undifferentiated human embryonic stem cells. It can also stimulate the proliferation of cells derived from the mesoderm, neuroectoderm, ectoderm, and endoderm. In vitro, bFGF acts as a chemotactic and mitogenic agent for endothelial cells and can promote nerve differentiation, survival, and regeneration. It has been proven to be crucial in regulating embryonic development and differentiation and may play a role in the in - vivo modulation of angiogenesis, tissue repair, embryonic development, and neuronal function. Recombinant human basic fibroblast growth factor has a molecular weight of 17.2 kDa and is an alkaline protein.

Product Characteristics

Source	Recombinant Escherichia coli
Product Appearance	White or off - white powder
Endotoxin	< 10 EU/mg
Cell Activity	> 1.0 x 10 ⁷ IU/mg (tested by BALB/3T3 cells)
Purity (HPLC)	≥ 95%
Molecular Weight (Protein Electrophoresis)	17 ± 1.5 kDa
Active Ingredient Content	10 - 15%

Storage and Transportation Stability

Storage Stability

The lyophilized powder of rhbFGF is stable for 36 months at -20°C and 12 months at 2 - 8°C. After being dissolved in water for injection or sterilized ultrapure water, it can be stored at -80°C with no more than 3 freeze - thaw cycles.

Transportation Stability

It is transported with blue ice insulation, and its activity remains stable.

Usage Method

It is recommended to dissolve the lyophilized bFGF in water for injection or sterilized ultrapure water at a concentration not lower than 100 µg/ml and not higher than 5 mg/ml for further dilution to the working concentration. Try to avoid repeated freeze - thaw cycles as much as possible.

The reconstituted cytokine can be stably stored at 4°C for 7 - 10 days. For long - term storage, aliquot and store at -80°C.

The lyophilized powder is easy to store and transport.

Compliance with Regulatory Requirements: The production equipment and production environment meet relevant regulatory requirements. The production process fully complies with the NSF ISO 9001:2015 quality system and follows the GMP guidelines.

Complete Quality Documents: Relevant regulatory support documents can be provided according to customer requirements.

Product Uses

Recombinant human basic fibroblast growth factor can promote the proliferation of many types of cells and can be used as an additive component in cell culture media.

Recommended cell lines: pluripotent stem cells, mesenchymal stem cells, muscle stem cells;

Hybridoma cells for antibody production;

Vero cells, BHK cells, diploid cells for the production of virus particles, etc.

Product Advantages

Animal - free: Produced by recombinant technology, free from exogenous virus contamination, and no animal - derived raw materials are used in the production process.

Stable Quality: Mass production (10 + g - level production and supply) ensures stable and continuous batch production; there is no difference between product batches, and the quality is stable.

High Purity: It has good biological activity, low endotoxin content, and the host protein residue is less than the limit requirements for biological products.