



Product Sheet

(ATCC® ACS-3025™)

Please read this FIRST



Storage Temp.  
**-80°C or colder**

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Biosafety Level  
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## Description

### Product Description:

Recombinant Human Basic Fibroblast Growth Factor (rh bFGF) is a heparin-binding growth factor that is used as a supplement in human embryonic stem cell (hESC) and human induced pluripotent stem cell (hiPSC) culture. Fibroblast growth factors are crucial components of many biological processes such as embryonic development and differentiation and neuron differentiation and regeneration. rh bFGF promotes the growth of cells of mesodermal origin and influences the proliferation of various cells of neuroectodermal, ectodermal and endodermal origin. The addition of rh bFGF to the stem cell culture media facilitates long-term propagation of hESCs and hiPSCs while maintaining the cells in a pluripotent state. rh bFGF supports both feeder-dependent and feeder-free cell culture systems.

rh bFGF, also known as FGF-2 or FGFb, is a non-glycosylated 17 kDa monomer consisting of 154 amino acids. rh bFGF is produced in a human expression system with serum-free, chemically defined medium and is intrinsically low in endotoxins.

**Volume:** 50 µg

### Directions for Use

Detailed protocols relating to this product are available online at <http://www.atcc-guides.org/>

### Reconstitution of rh bFGF

1. Briefly centrifuge the vial prior to opening to bring the contents to the bottom of the tube.
2. Prepare a 10 µg/mL stock solution in Dulbecco's Phosphate Buffered Saline (ATCC 30-2200).
3. Filter sterilize through a 0.22 µm filter membrane.
4. Aliquot into working volumes according to routine usage.
5. Store aliquots at -20°C for up to six months. Avoid repeated freezing and thawing. Once thawed, aliquots may be kept at 2°C to 8°C for two weeks.

### Supplement to Cell Culture Medium

1. ATCC recommends the addition of rh bFGF to
2. Pluripotent Stem Cell SFM XF (ATCC ACS-3001) for feeder-dependent culture (e.g., mouse embryonic fibroblasts (MEF) or human foreskin fibroblasts (HFF)).
3. Thaw aliquot of 10 µg/mL rh bFGF stock solution on ice.
4. Dilute to 4 mg/mL in stem cell culture medium.
5. Store supplemented medium at 2°C to 8°C. Use within one week of preparation.

### Quality Control Specifications

Purity: > 95% by SDS-PAGE.

Endotoxin: < 1 EU/µg of the protein by LAL method.

Activity: ED50 ranges from 0.1 to 0.5 ng/mL as determined in a cell proliferation assay.

## ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

## Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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