Recombinant Bovine Basic Fibroblast Growth Factor (rBobFGF) Cat No. SB-ZR012

◆Description

Bovine bFGF, encoded by the FGF2 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Bovine bFGF shares 95% a.a. sequence identity with murine bFGF, and 97% a.a. sequence identity with rat. Affinity between bFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. bFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. It is also involved in a variety of biological processes, including embryonic development, morphogenesis, tissue repair, tumor growth and invasion. Additionally, bFGF is frequently used for a critical component of cell culture medium, e.g., human embryonic stem cell culture medium, serum-free culture systems. Recombinant bovine bFGF is a 16.5kDa globular protein containing 147 amino acid residues.

◆Product Information

Product Name	Recombinant Bovine Basic Fibroblast Growth Factor (rBobFGF)
Synonyms	FGF-2, HBGF-2
Source	Expressed in *E. coli*.
Molecular weight	Approximately 16.5kDa, a single non-glycosylated polypeptide chain containing 147 amino acids.
Accession	P03969 Pro10-Ser155 with an N-terminal Met
AA Sequence	MPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLRIHPDGRVDGVREKSDPHIKLQLQAEERGVVSIKG VCANRYLAMKEDGRLLASKCVTDECFFFERLESNNYNTYRSRKYSSWYVALKRTGQYKLGPKTGPGQK AILFLPMSAKS
Purity	＞98% by SDS-PAGE or HPLC.
Biological activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using murine balb/c 3T3 cells is less than 0.1ng/ml, corresponding to a specific activity of >1.0 ×10^7IU/mg.
Formulation	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, 150mM NaCl, pH 7.4.
Endotoxin level	＜0.1EU/μg rBobFGF protein as determined by LAL method.
Reconstitution	**Before use this product, please read the direction below carefully.** 1、 This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. 2、 Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤-20℃. Further dilutions should be made in appropriate buffered solutions.

Storage/ Stability	White lyophilized powder. For long term storage, the product should be stored ≤-20℃. 36 months, -20 to -70℃ as supplied. 1 month, 2 to 8℃ under sterile conditions after reconstitution; 3 months, -20 to -70℃ under sterile conditions after reconstitution. **Please avoid repeated freeze-thaw cycles.**
THIS PRODUCT IS FOR RESEARCH, LABORATORY AND EVALUATION PURPOSE ONLY.	