

Stable Fibroblast Growth Factor 2 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RENT001010	(0.01 mg)
Species: Human	RENT001050	(0.05 mg)
	RENT0011000	(1 mg)

Description

Recombinant human FGF2-STAB is a protein FGF2 genetically engineered to enhance thermal stability and prolong half-life without modification of a biological function. Total 175 AA. Mw: 19.4 kDa (calculated). N-terminal His-tag and thrombin cleavage recognition site, 20 extra AA.

Introduction to the Molecule

FGF2-STAB is a stabilized growth factor that offers a novel way to grow FGF2-dependent cell cultures more efficiently, with fewer media changes. FGF2-STAB retains full biological activity even after five days at 37°C. The stable level of FGF2 in culture allows for a more homogenous, undifferentiated stem cell culture, while saving researchers valuable time and money, as repeated supplementation by FGF2 and every day medium change is not required. FGF2 is a non-glycosylated heparin binding growth factor that is expressed in the brain, pituitary gland, kidney, retina, bone, testis, adrenal gland, liver, monocytes, epithelial cells and endothelial cells. FGF2 functions as a pleiotropic regulator of proliferation, differentiation, migration, and survival in a variety of cell types and is an essential component of media for the cultivation of human pluripotent stem cells because it helps maintain the cells in the pluripotent state. This property makes cells valuable for studying embryogenesis, for drug discovery, and for cell-based therapies.

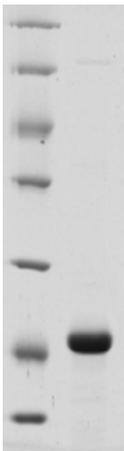
Source

E. coli

Purity

>95%

SDS-PAGE gel



15% SDS-PAGE separation under reducing conditions.

1. M.W. marker - 14, 18, 25, 35, 45 66, 116 kDa
2. Recombinant protein

Endotoxin

< 1.0 EU/μg

Formulation

Lyophilized from a filtered solution in 20 mM potassium phosphate buffer and 750 mM sodium chloride, pH 7.5.

Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5-1.0 mg/mL and let the lyophilized pellet dissolve

completely.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store lyophilized protein at -80°C. Lyophilized protein remains stable until the expiry date when stored at -80°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change in a structure and biological activity after one week at 4°C.

Quality Control Test

Bradford protein assay to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

LAL assay to determine quantity of endotoxin.

Proliferation assay with human embryonic stem cells (CCTL14) to determine biological activity.

Applications

Biologically active protein, Cell culture and/or animal studies

Note

This product is intended for research use only.

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