ACTIVE BIOSCIENCE
PROTEINS · CELLS · ANTIBODIES

Human FGF-basic-thermostable, FGF-2-thermostable

Human Fibroblast Growth Factor-basic, recombinant, thermostable

Synonyms: FGF2, BFGF, FGFB, HBGF-2, basic Fibroblast growth factor (bFGF), Heparin binding growth factor-2.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
50 µg	1368.950.050		
200 µg	1368.950.200		
500 µg	1368.950.500		
1 mg	1368.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant human Fibroblast Growth Factor-basic (hFGF-b) thermostable is a 16.5 kDa protein containing 153 amino acid residues. It has been generated by a targeted exchange of 8 amino acids in comparison with the wild type. FGF-Basic is an essential factor in stem cell culture. Recombinant FGF-Basic has a very long shelf life if it is stored lyophilized or dissolved at low temperatures but degrades quickly in cell culture medium at higher temperatures. The thermostability of FGF-2 in medium can be increased by specific mutations. Our FGF-2-thermostable is characterized by an increased thermostability compared to the wild type while maintaining the same high activity (Fig. 1).

- **Biological Activity** ≥ 1 x 10^6 IU/mg (HUVEC); ≥ 2 x 10^7 units/mg (BALB/c 3T3)
- **Source** *E. Coli*
- **Purity** ≥ 98 % (SDS-PAGE, silver stained)
- **Endotoxin level** ≤ 0.1ng/µg (≤ 1EU/µg)
- **Stabilizer** None
- **Buffer** PBS*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

The ED_{50} of ≤ 1 ng/ml was determined for stimulation of cell proliferation with human FGF-basic (FGF-2) in HUVECs (human umbilical vein endothelial cells), corresponding to a specific activity of ≥ 1x10^6 IU/mg. An ED_{50} of ≤ 0.05 ng/ml was determined by stimulation of 3H-Thymidine incorporation in BALB/c 3T3 cells, corresponding to a specific activity of ≥ 2.0 x 10^7 units/mg.

Reconstitution

We recommend a quick spin followed by reconstitution in sterile-filtered water to a concentration of at least 0.05 mg/ml. Do not vortex. This solution can then be diluted into other aqueous buffers. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein e.g. 0.1% HSA (order number: 2835.955.xyz or 2835.958.xyz) or BSA (order number: 2835.919.xyz).

Stability

The lyophilized protein is stable at room temperature for up to 3 weeks and below -20°C until expiry date. Reconstitut-ed human FGF-basic thermostable should be stored in working aliquots at -20°C. Please avoid repeated freeze-thaw cycles.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

Stability of Thermostable FGF-basic

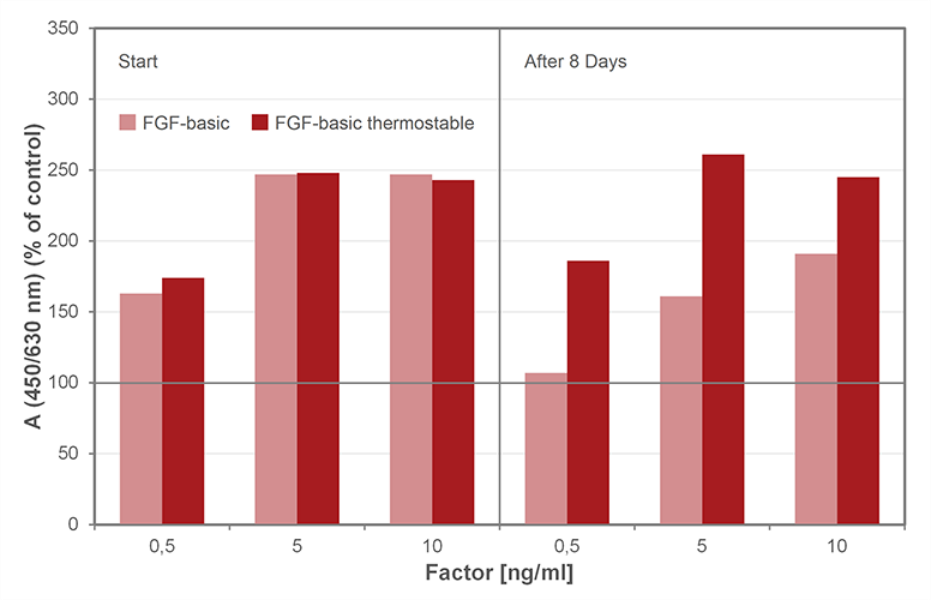

***Fig. 1**: Stability of Thermostable FGF-basic after 8 Days of Incubation - Proliferation with HUVEC (HU2007-02).*

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

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