



Recombinant Protein Technical Manual  
Recombinant Human FGF-2/FGF basic/FGFb Protein  
(aa 155, Lus128Asn)  
RPES4433

Product Data:

**Product SKU:** RPES4433

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P09038-2

Protein Information:

**Molecular Mass:** 17.2 kDa

**AP Molecular Mass:** 17 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM Tris, 200mM NaCl, pH7.5.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Fibroblast growth factor 2; FGF-2; Basic fibroblast growth factor; bFGF; Heparin-binding growth factor 2; HBGF-2; FGF2; FGFB

## Immunogen Information:

**Sequence:** Met1-Ser155(Lus128Asn)

## Background:

Fibroblast growth factors (FGF) are a family of heparin-binding secreted proteins that stimulate cell proliferation and differentiation in a wide variety of tissues. FGFs play important roles in diverse biological functions both in vivo and in vitro, including mitogenesis, cellular migration, differentiation, angiogenesis, and wound healing. Human embryonic stem cell (hESC) cultures require FGF basic (also known as FGF-2 or bFGF) in cell culture media to remain in an undifferentiated and pluripotent state. Thermostable FGF basic was engineered for enhanced stability in culture media, without modification of its biological function. FGF basic is a required component of stem cell culture media for maintaining cells in an undifferentiated state. Because FGF basic is unstable, daily media changes are needed. The thermostable FGF basic that supports a 2-day media change schedule, so no media changes are required over a weekend. This thermostable FGF basic was more stable than FGF basic in biochemical studies, and maintained cell growth, pluripotency and differentiation potential with a 2-day feeding schedule.