

# Human FGF-basic/FGF2 (147 aa) Recombinant Protein



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## 10 µg

### For Research Use Only. Not for Use in Diagnostic Procedures.

<b>MW (kDa):</b> 16.5	UniProt ID: #P09038	Entrez-Gene Id: 2247
Background		FGF-basic (FGF2) is produced by epithelial, tumor, and other cell types (1). FGF-basic is involved in developmental processes and regulates differentiation, proliferation, and migration (1-6). FGF-basic is a critical factor for growing embryonic stem cells in culture without inducing differentiation. FGF-basic has a high affinity for heparan sulfate (1,2) and FGF-heparan sulfate binding is a step in the activation of FGFR tyrosine kinase. There are four distinct FGF receptors and each has multiple splice variants. FGF-basic binds with high affinity to many, but not all, FGFRs. Signaling cascades activated through FGF-basic binding to FGFR include the ras-raf-MAPK, PLCy/PKC, and PI3K/Akt pathways (1).
Endotoxin		Endotoxin levels are less than or equal to 1 EU / 1 μg hFGF-basic.
Purity		A greater than or equal to 95% purity was determined by SDS-PAGE.
Source / Purificat	ion	Recombinant human FGF-basic was expressed in <i>E. coli</i> and is supplied in a lyophilized form.
Bioactivity		The bioactivity of recombinant human FGF-basic was determined in a NR6R-3T3 cell proliferation assay. The $ED_{50}$ of each lot is less than or equal to 5 ng/mL.
Background Refe	rences	1. Dvorak, P. and Hampl, A. (2005) <i>Folia Histochem Cytobiol</i> 43, 203-8. 2. Ornitz, D.M. and Itoh, N. (2001) <i>Genome Biol</i> 2, REVIEWS3005. 3. Shi, Y. et al. (2008) <i>Crit Rev Oncol Hematol</i> 65, 43-53. 4. Fontijn, D. et al. (2006) <i>Br J Cancer</i> 94, 1627-36. 5. Marek, L. et al. (2009) <i>Mol Pharmacol</i> 75, 196-207. 6. Acevedo, V.D. et al. (2009) <i>Cell Cycle</i> 8, 580-8.

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