

# Human Basic Fibroblast Growth Factor (hFGF basic/FGF2)



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
17	#P09038	2247
<b>Background</b>	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 binding is a step in the FGF basic 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, PLCγ/PKC, and PI3K/AKT pathways (1).	
<b>Endotoxin</b>	Less than 0.01 ng endotoxin/1 μg hFGF basic.	
<b>Purity</b>	>98% as determined by SDS-PAGE of 6 μg reduced (+) and non-reduced (-) recombinant hFGF basic. All lots are greater than 98% pure.	
<b>Source / Purification</b>	Recombinant human FGF basic (hFGF basic) Pro143-Ser288 (Accession #NP_001997) was produced in <i>E. coli</i> at Cell Signaling Technology.	
<b>Bioactivity</b>	The bioactivity of recombinant hFGF basic was determined in a NIH/3T3 cell proliferation assay. The ED <sub>50</sub> of each lot is between 0.2 - 1.0 ng/ml.	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Dvorak, P. and Hampl, A. (2005) <i>Folia Histochem Cytobiol</i> 43, 203-8.</li> <li>2. Ornitz, D.M. and Itoh, N. (2001) <i>Genome Biol</i> 2, REVIEWS3005.</li> <li>3. Shi, Y. et al. (2008) <i>Crit Rev Oncol Hematol</i> 65, 43-53.</li> <li>4. Fontijn, D. et al. (2006) <i>Br J Cancer</i> 94, 1627-36.</li> <li>5. Marek, L. et al. (2009) <i>Mol Pharmacol</i> 75, 196-207.</li> <li>6. Acevedo, V.D. et al. (2009) <i>Cell Cycle</i> 8, 580-8.</li> </ol>	

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