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#66646**Human FGF-5 Recombinant Protein**

10 µg


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MW (kDa):	UniProt ID:	Entrez-Gene Id:
27.7	#P12034-2	2250
<b>Background</b>	FGF-5 is a member of the large and diverse fibroblast growth factor (FGF) family of peptide growth factors. FGF-5 binds to receptor FGFR1 and functions as a signaling molecule that plays a critical role in the regulation of the hair cycle (1,2). Mutations in <i>FGF5</i> exhibit familial trichomegaly, a condition that involves a significant increase in the anagen phase of the hair growth cycle as well as extremely long eyelashes (1). FGF-5 also plays an important role in androgenetic alopecia as demonstrated in a genome-wide association study of men with early onset of this disease. Polymorphisms in FGF-5 have a strong association with the biology of male pattern hair loss (3). Clinical studies have shown that topical application of formulations containing FGF-5 are beneficial to men and women experiencing hair loss (4).	
<b>Endotoxin</b>	Endotoxin levels are less than or equal to 1 EU / 1 µg hFGF-5.	
<b>Purity</b>	A greater than or equal to 95% purity was determined by SDS-PAGE.	
<b>Source / Purification</b>	Recombinant human FGF-5 was expressed in <i>E. coli</i> and is supplied in a lyophilized form.	
<b>Bioactivity</b>	The bioactivity of recombinant hFGF-5 was determined in an NR6R-3T3 cell proliferation assay. The ED <sub>50</sub> of each lot is less than or equal to 10 ng/mL.	
<b>Background References</b>	1. Higgins, C.A. et al. (2014) <i>Proc Natl Acad Sci U S A</i> 111, 10648-53. 2. Hébert, J.M. et al. (1994) <i>Cell</i> 78, 1017-25. 3. Heilmann-Heimbach, S. et al. (2017) <i>Nat Commun</i> 8, 14694. 4. Burg, D. et al. (2017) <i>Clin Cosmet Investig Dermatol</i> 10, 71-85.	

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