

12579

Human His6IGFBP3 (hHis6IGFBP3)



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MW (kDa): 50	UniProt ID: #P17936	Entrez-Gene Id: 3486
Background		IGFBP3 is a multifunctional protein that plays a key role in regulation of IGFI/II activity, cell proliferation, and death. One of six high-affinity IGF binding proteins, IGFBP3 is the major species in circulation and is bound in a complex with ALS to 99% of hepatic IGF-I (1). Proteolytic degradation of IGFBP3 increases the bioavailability and activity of the IGF I/II (1). However, some biological activities of IGFBP3 are independent of the IGF/IGF-IR axis. IGFBP3 potentiates EGF-induced breast cancer cell proliferation <i>in vitro</i> by enhancing ERK phosphorylation and sphingosine kinase-mediated EGFR transactivation (2,3). Conversely, IGFBP3 has been shown to induce apoptosis and inhibit NF-κB activity (4).
Endotoxin		Less than 0.01 ng endotoxin/1 μg h _{His6} IGFBP3.
Purity		>95% as determined by SDS-PAGE of 6 μg reduced (+) and nonreduced (-) recombinant $h_{\text{His}} IGFBP3.$ All lots are greater than 95% pure.
Source / Purifica	ation	Recombinant Human $_{\rm His6}$ IGFBP3 ($h_{\rm His6}$ IGFBP3) Gly28-Lys291 (Accession #NP_17936) was expressed in human 293 cells at Cell Signaling Technology.
Bioactivity		The bioactivity of $h_{His6}IGFBP3$ was determined by inhibition of IGF-I induced AKT phosphorylation in human dermal fibroblasts. The ED ₅₀ of each lot is between 2.5-9 ng/ml.
Background References		1. Jogie-Brahim, S. et al. (2009) <i>Endocr Rev</i> 30, 417-37. 2. Martin, J.L. et al. (2003) <i>J Biol Chem</i> 278, 2969-76. 3. Martin, J.L. et al. (2009) <i>J Biol Chem</i> 284, 25542-52. 4. Han, J. et al. (2011) <i>Cancer Lett</i> 307, 200-10.

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