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#75362**Human TGF- β 1 Recombinant Protein**20 μ g
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MW (kDa):	UniProt ID:	Entrez-Gene Id:
25.6	#P01137	7040
Background		
TGF- β 1 activities include proliferation, angiogenesis, and promotion or inhibition of many immune events (1-3). TGF- β 1 is produced by a number of cell types, including regulatory T cells, fibroblasts, epithelial cells, and endothelial cells (3). TGF- β 1 binds to T β RII homodimer, which then complexes with T β RI homodimer (1,4). The oligomeric receptor complex phosphorylates subsets of the SMAD proteins that then act to induce and repress a number of target genes (1,3,4). TGF- β 1 binding can also activate the Erk2, p38, and JNK pathways via TAK1 (4). TGF- β 1 appears to promote late stage progression and metastasis in some cancers (1,2).		
Endotoxin		
Endotoxin levels are less than or equal to 1 EU / 1 μ g hTGF- β 1.		
Purity		
A greater than or equal to 95% purity was determined by SDS-PAGE.		
Source / Purification		
Recombinant human TGF- β 1 was expressed in CHO cells and is supplied in a lyophilized form.		
Bioactivity		
The bioactivity of recombinant hTGF- β 1 was determined in an IL-4 induced HT-2 cell proliferation assay. The ED ₅₀ of each lot is less than or equal to 0.5 ng/mL.		
Background References		
1. Siegel, P.M. and Massagué, J. (2003) <i>Nat Rev Cancer</i> 3, 807-21. 2. Bierie, B. and Moses, H.L. (2006) <i>Nat Rev Cancer</i> 6, 506-20. 3. Tian, M. and Schiemann, W.P. (2009) <i>Future Oncol</i> 5, 259-71. 4. Moustakas, A. and Heldin, C.H. (2009) <i>Development</i> 136, 3699-714.		

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