

**Product:** **Recombinant Human TGF- $\beta$ 1**  
**Cat #: 300-191P**  
Powder

Description	Transforming Growth Factor-beta 1 (TGF- $\beta$ 1) is a member of the TGF-beta superfamily. Members of this family are known to exhibit regulatory activity in immunity and proliferation pathways. TGF- $\beta$ 1 signals through SMAD proteins via the TGF- $\beta$ 1 RI and RII receptors. Alternate names: Differentiation inhibiting factor, cartilage-inducing factor
MW	Glycosylated homodimer, containing two 112 amino acids chains, with a total molecular weight of 25 kDa.
Physical Appearance	Sterile filtered white lyophilized (freeze-dried) powder.
Source	<i>E. coli</i>
Formulation	Lyophilized from a sterile 0.2 micron filtered aqueous solution containing 0.1% trifluoroacetic acid (TFA) and Trehalose (in a 20:1 Trehalose to protein ratio).
Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile 5 mM HCl + 50 $\mu$ g/mL BSA at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.
Stability	Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage
Biological Activity	The activity is measured by the dose-dependent inhibition of IL-4-induced proliferation from mouse HT-2 cells and is typically 0.04-0.2 ng/mL.
Endotoxin Level	Measured by kinetic LAL analysis and is typically $\leq$ 1 EU/ $\mu$ g protein.
AA Sequence	ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK VLALYNQHNP GASAAPCCVP QALEPLPIVY YVGRKPKVEQ LSNMIVRSCK CS

Purity greater than 98% determined by Reducing and Non-reducing SDS-PAGE.

Protein content determined by Reducing and Non-reducing SDS-PAGE.

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**