

## Recombinant Human/Mouse/Rat TGF-beta 1 Protein

### Product Information

Product Name	Cat#	Size
Recombinant Human/Mouse/Rat TGF-beta 1 Protein	91701ES08	5 µg
	91701ES60	100 µg

### Product Description

Transforming growth factor-beta1 (TGF-β1) is a major pluripotential cytokine with a pronounced immunosuppressive effect. TGF-β1 is one of three closely related mammalian members of the large TGF-β superfamily that share a characteristic cystine knot structure. Mature human TGF-β1 shares 100% aa identity with pig, dog and cow TGF-β1, and 99% aa identity with mouse, rat and horse TGF-β1. TGF-β1 is a key regulator of diverse biological processes in many tissues and cell types, its can be tumorsuppressive through the activation of the Smadmediated signaling pathway. TGF-β1 inhibits the growth factor and oncogene induction of transin/stromelysin, a secreted matrix-degrading metalloprotease.

### Product Properties

<b>Synonyms</b>	CEDLAP, DPD1, latency-associated peptide, TGF beta, TGF beta1, TGFB, TGFB1
<b>Accession</b>	P01137
<b>GeneID</b>	7040
<b>Source</b>	CHO-derived Human TGF-β1, Ala279-Ser390.
<b>Molecular Weight</b>	Approximately 12 kDa under reducing conditions.
<b>AA Sequence</b>	ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK VLALYNQHNP GASAAPCCVP QALEPLPIVY YVGRKPKVEQ LSNMIVRSCK CS
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	>97% by SDS-PAGE analyses.
<b>Biological Activity</b>	Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED <sub>50</sub> for this effect is 0.04-0.2 ng/mL. The specific activity of Recombinant Human TGF-β1 is approximately 2.5 × 10 <sup>4</sup> U/µg, which is calibrated against human TGF-β1 Standard.
<b>Endotoxin</b>	< 0.1 EU per 1 µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 35% Acetonitrile and 0.1% TFA. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	Reconstitute in sterile 4 mM HCl to a concentration of 0.1 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriately buffered solutions.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20 °C for 1 year.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 °C under sterile conditions after reconstitution.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!