

## TGF-beta 1 (CHO cell derived) Human Chinese Hamster Ovary Cells (CHO)

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> Chinese Hamster Ovary Cells (CHO)	RBG10311002	(2 µg)
<b>Species:</b> Human	RBG10311010	(10 µg)
<b>Other names:</b> Transforming Growth Factor- $\beta$ 1, Differentiation inhibiting factor, Cartilage-inducing factor	RBG10311100	(100 µg)

### Description

The three mammalian isoforms of TGF-beta, TGF-beta1, beta2, and beta3, signal through the same receptor and elicit similar biological responses. They are multifunctional cytokines that regulate cell proliferation, growth, differentiation and motility, as well as synthesis and deposition of the extracellular matrix. They are involved in various physiological processes, including embryogenesis, tissue remodeling and wound healing. They are secreted predominantly as latent complexes, which are stored at the cell surface and in the extracellular matrix. The release of the biologically active TGF-beta isoform from a latent complex involves proteolytic processing of the complex and /or induction of conformational changes by proteins such as thrombospondin-1. TGF-beta1 is the most abundant isoform secreted by almost every cell type. It was originally identified for its ability to induce phenotypic transformation of fibroblasts, and recently it has been implicated in the formation of skin tumors. Recombinant Human TGF-beta1 is a 25.0 kDa protein composed of two identical 112 amino acid polypeptide chains linked by a single disulfide bond.

### Research topic

Apoptosis, Cardiovascular disease, Coronary artery disease, Immune Response, Infection and Inflammation, Oncology

### Amino Acid Sequence

ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK VLALYNQHNH GASAAPCCVP  
QALEPLPIVY YVGRKPKVEQ LSNMIVRSCK CS

### Source

Chinese Hamster Ovary Cells (CHO)

### Purity

98%

### Biological Activity

The ED<sub>50</sub> was determined by TGF-beta1's ability to inhibit the mouse IL-4-dependent proliferation of mouse HT-2 cells is ? 0.05 ng/ml, corresponding to a specific activity of ? 2x10<sup>7</sup> units/mg

### Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

### Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

### Storage, Stability/Shelf Life

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