

## TGF-beta 2 (insect derived) Human (BTI-Tn-5B1-4) Hi-5 Insect cells\*

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> (BTI-Tn-5B1-4) Hi-5 Insect cells*	RBG10312001	(1 µg)
<b>Species:</b> Human	RBG10312005	(5 µg)
<b>Other names:</b> Transforming Growth Factor-β2, Glioblastoma-derived T cell suppressor factor, BSC-1, Cetermin, Polyergin	RBG10312100	(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-beta2 has been shown to exert suppressive effects on IL-2-dependent T-cell growth, and may also have an autocrine function in enhancing tumor growth by suppressing immuno-surveillance of tumor development. Recombinant Human TGF-beta2 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

ALDAAYCFRN VQDNCLRPL YIDFKRDLGW KWIHEPKGYN ANFCAGACPY LWSSDTQHSR VLSLYNTINP EASASPCCVS  
QDLEPLTILY YIGKTPKIEQ LSNMIVKSCK CS

### Source

(BTI-Tn-5B1-4) Hi-5 Insect cells\*

### Purity

98%

### Biological Activity

Determined by its ability to inhibit the mouse IL-4-dependent proliferation of mouse HT-2 cells. The  $ED_{50}$  was found to be 0.2 ng/ml, corresponding to a specific activity of  $5 \times 10^6$  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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