

## ***BDNF, recombinant Human/Murine/Rat***

**Cat # NB-50-0029-2 Size: 2µg**

**Cat # NB-50-0029-10 Size: 10µg**

**Cat # NB-50-0029-50 Size: 50µg**

**Cat # NB-50-0029-100 Size: 100µg**

**Cat # NB-50-0029-250 Size: 250µg**

**Cat # NB-50-0029-500 Size: 500µg**

**Cat # NB-50-0029-1 Size: 1mg (provided as 2x500µg)**

### **Description**

The three mammalian isoforms of TGF- $\beta$ , TGF- $\beta$ 1,  $\beta$ 2, and  $\beta$ 3, 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- $\beta$ 1 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- $\beta$ 1 is a 25.0 kDa protein composed of two identical 112 amino acid polypeptide chains linked by a single disulfide bond.

### **Product Information**

<b>Source:</b>	CHO cells
<b>Synonyms:</b>	Transforming Growth Factor- $\beta$ 1, Differentiation inhibiting factor, Cartilage-inducing factor
<b>AA Sequence:</b>	(monomer) ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK VLALYNQHNP GASAAPCCVP QALEPLPIVY YVGRKPKVEQ LSNMIVRSCK CS
<b>Calculated M.W.:</b>	25 kDa

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

### **Storage & Handling**

**Handling:** Centrifuge vial prior to opening. Do not vortex after reconstitution. Avoid repeated freeze-thaw cycles.

**Reconstitution:** Initially reconstitute in water to 0.1-1.0 mg/ml. Store at 2°C to 8°C for up to 1 week or prepare for extended storage.

**Extended Storage:** After initial reconstitution, further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA). Store working aliquots at -20°C to -80°C.

Product Form	Temperature	Storage Time
Lyophilized	-20°C to -80°C	see date on label
Lyophilized	4°C	6 months
Lyophilized	Room Temperature	1 month
Reconstituted	2°C to 8°C	1 week
Extended Storage	-20°C to -80°C	12 months

## Biological activity

The ED<sub>50</sub> was determined by TGF-β1'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 ≥ 2 x 10<sup>7</sup> units/mg.

## Target

**Accession Number:** P01137

**Gene ID:** 7040

*For reference only  
For Research Use Only. Not for Diagnostic or Therapeutic Use.*