

# Cytokines

## Human Recombinant TGF-beta 2



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### Transforming growth factor beta 2

Catalog # 78174  
78174.1

10 µg  
50 µg

## Product Description

Transforming growth factor (TGF) beta 2 is a member of the TGF-β superfamily and regulates diverse cellular phenotypes. Similar to TGF-β1 & -β3, TGF-β2 signals via serine-threonine kinase type I and II receptors and activates signal transduction via SMAD family proteins, regulating a variety of functions such as cell proliferation, differentiation, wound healing, apoptosis, and metabolism (de Caestecker; Massague; Zuniga et al.). TGF-β2 is important in many developmental processes; for example, mice with TGF-β2 deletions show defects in the development of cardiac, lung, craniofacial, limb, eye, ear, and urogenital systems (Dunker & Kreigstein).

## Product Information

**Alternative Names:** BSC-1 cell growth inhibitor, Cetermin, Glioblastoma-derived T-cell suppressor factor, G-TSF, Polyergin, TGF-beta-2, TGFB2, Transforming growth factor beta-2

**Accession Number:** P61812

**Amino Acid Sequence:** ALDAAYCFRN VQDNCCLRPL YIDFKRDLGW KWIHEPKGYN ANFCAGACPY LWSSDTQHSR VLSLYNTINP EASASPCCVS QDLEPLTILY YIGKTPKIEQ LSNMIVKSCK CS

**Predicted Molecular Mass:** 12.7 kDa

**Species:** Human

**Cross Reactivity:** Reported to be species-specific

**Formulation:** Lyophilized from a filtered solution containing hydrochloric acid.

**Source:** Human Cells

## Specifications

**Activity:** The specific activity is  $\geq 5.0 \times 10^6$  units/mg ( $EC_{50} \leq 0.2$  ng/mL) as determined by a cell proliferation assay using mouse HT-2 cells.

**Purity:**  $\geq 95\%$

**Endotoxin Level:** Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is  $\leq 1$  EU/µg protein.

## Preparation and Storage

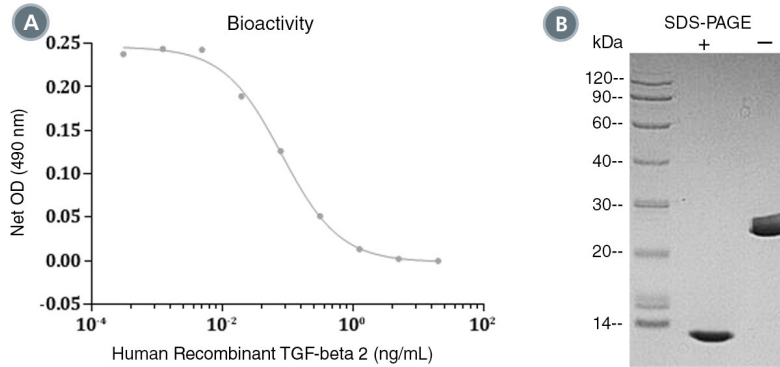
**Storage:** Store at -80°C.

**Stability:** Stable as supplied for 12 months from date of receipt.

**Preparation:** Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 week or at -20°C to -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

## Data



(A) The biological activity of Human Recombinant TGF-beta 2 was tested by its ability to promote the proliferation of mouse HT-2 cells. Cell proliferation was measured using a fluorometric assay method. The EC<sub>50</sub> is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC<sub>50</sub> in the example above is less than 0.2 ng/mL.

(B) 5 µg of Human Recombinant TGF-beta 2 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant TGF-beta 2 has a predicted molecular mass of 12.7 kDa.

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## References

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