Miltenyi Biotec

Human TGF-β2
research grade

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1. Description

Products Human TGF-β2, research grade.

Recombinant human transforming growth factor β2.

Content in µg	Order no.
10	130-123-657

Biological activity The ED_{50} is ≤0.2 ng/mL corresponding to an activity of ≥5×10^6 U/mg.

▲ **Note:** The ED_{50} was determined by the ability of human TGF-β2 to inhibit the mouse IL-4–dependent proliferation of mouse HT-2 cells.

Primary structure Two identical, non-glycosylated disulfidelinked polypeptide chains (112 amino acid residues without LAP).

Molecular mass 25.4 kDa (dimer).

Source Produced in HEK293 cells.

Product format Lyophilized from a filtered (0.2 µm) buffer solution.

Stabilizer None.

Purity >95% as determined by SDS-PAGE analysis.

Endotoxin level Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.

Storage Lyophilized Human TGF-β2, research grade should be stored at –20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at –20 °C or below. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended to reconstitute lyophilized Human TGF-β2, research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 50 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.

1.1 Background information

Human transforming growth factor β2 (TGF-β2) is a member of a superfamily of homologous, disulfide-linked, homodimeric proteins that regulate the proliferation and differentiation of normal and transformed cells. Human TGF-β2 is a 25.4 kDa protein with each subunit containing 112 amino acid residues.

1.2 Applications

Human TGF-β2 may be used for a variety of applications, including:

- Mechanisms of tumor development.
- Tissue-engineering, organ development, and embryogenesis.
- Investigation of TGF-β-receptor signaling pathway.

Optimal concentration for a specific application should be determined by a dose-response experiment.

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