

Recombinant Human TGFβ1 / Transforming Growth Factor beta 1, Animal Free & Carrier Free

Cat #: C-CYP293

Size: 5μg, 20μg, 100μg, 500μg, 1mg

Shipping: Blue Ice

Product Overview

Transforming growth factor beta 1 or TGF-β1 is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation, and apoptosis. In humans, TGF-β1 is encoded by the TGFB1 gene.

Product Information

Source: *Escherichia Coli*.

Purity: >98% as determined by SDS-PAGE. Ni-NTA chromatography.

Biological Activity: Measure by its ability to inhibit the IL-4 dependent proliferation in HT-2 cells. The ED50 for this effect is <0.1 ng/mL. The specific activity of recombinant human TGF beta 1 is approximately >5 x 10⁷ IU/mg. Measure by its ability to induce proliferation in MCF-7 cells. The ED₅₀ for this effect is <3.2 ng/mL..

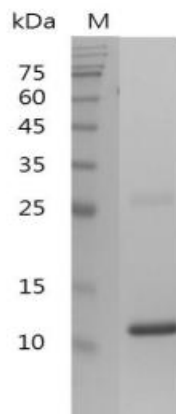
Endotoxin: <0.1 EU per 1 μg of the protein by the LAL method.

Amino acid sequence:

MALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGASAAPCCVPPQALEPLPIVY

YVGRKPKVEQLSNMIVRSCKCS with polyhistidine tag at the C- terminus.

Formulation: Lyophilized from a sterile filtered aqueous solution in 20mM sodium citrate, 0.2M NaCl, pH 4.5.



SDS-PAGE analysis of recombinant human TGF beta 1

Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. Reconstitute to a concentration of 0.1-1.0 mg/mL in 10mM HCl. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.
3. The reconstituted solution can be stored at 2-8°C for up to 1 week.
4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 µg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.