

Product datasheet for **TP728284M**

Recombinant TGF beta 1 (Transforming growth factor beta 1), Human

Product data:

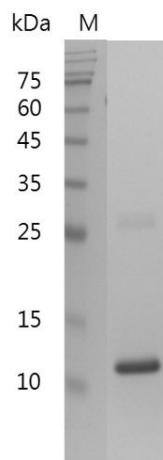
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|---------------------------------------|--|
| Product Type: | Recombinant Proteins |
| Description: | Recombinant TGF beta 1 (Transforming growth factor beta 1), Human |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | MALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQH NPGASAAPCCVPQALEPLPIVYVYVGRKPKVEQLSNMIVRSCKCS with polyhistidine tag at the C-terminus. |
| Tag: | His Tag (C-term) |
| Predicted MW: | The protein has a calculated MW of 13.7 kDa. The protein migrates as 13 kDa under reducing condition (SDS-PAGE analysis). |
| Purity: | >98% as determined by SDS-PAGE. |
| Buffer: | The protein was lyophilized from a 0.2 µm filtered solution containing 20 mM sodium citrate and 0.2 M NaCl, pH 4.5. |
| Bioactivity: | Measure by its ability to inhibit the IL-4 dependent proliferation in HT-2 cells. The ED ₅₀ for this effect is <0.1 ng/mL. The specific activity of recombinant human TGF beta 1 is approximately >5 x 10 ⁷ IU/mg. Measure by its ability to induce proliferation in MCF-7 cells. The ED ₅₀ for this effect is <3.2 ng/mL. |
| Endotoxin: | <0.1 EU per 1 µg of the protein by the LAL method. |
| Reconstitution Method: | Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile 10 mM HCl to a concentration not less than 100 µg/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein. |
| Applications: | Cell culture |
| Storage: | Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles. |
| UniProt ID: | P01137 |
| Synonyms: | Differentiation inhibiting factor, Cartilage-inducing factor, CED, DPD1, IBDIMDE, LAP, TGFB |



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Summary:

The transforming Growth Factors beta (TGF beta) family of cytokines are ubiquitous, multifunctional, and essential to survival. They play the central roles in growth, development, inflammation, repair, and host immunity. The mammalian TGF beta isoforms (TGF beta 1, beta 2 and beta 3) are secreted as potential precursors and possess a variety of cell surface receptors and produces at least two mediate signal transductions.

Product images:

SDS- PAGE analysis of recombinant human TGF beta 1