



Recombinant Rat Transforming growth factor beta-1 proprotein (Tgfb1), partial

Product Code	CSB-EP023446RAa0
Relevance	Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It positively and negatively regulates many other growth factors. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts. Stimulates sustained production of collagen through the activation of CREB3L1 by regulated intramembrane proteolysis (RIP). Can promote either T-helper 17 cells (Th17) or regulatory T-cells (Treg) lineage differentiation in a concentration-dependent manner. At high concentrations, leads to FOXP3-mediated suppression of RORC and down-regulation of IL-17 expression, favoring Treg cell development. At low concentrations in concert with IL-6 and IL-21, leads to expression of the IL-17 and IL-23 receptors, favoring differentiation to Th17 cells. Mediates SMAD2/3 activation by inducing its phosphorylation and subsequent translocation to the nucleus. Can induce epithelial-to-mesenchymal transition (EMT) and cell migration in various cell types
Abbreviation	Recombinant Rat Tgfb1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P17246
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	LSTCKTIDMELVKRKRIEAIRGQILSKLRLASPPSQGEVPPGPLPEAVLALYNST RDRVAGESADPEPEPEADYYAKEVTRVLMVDRNNAIYDKTKDITHSIYMFNT SDIREAVPEPPLLSRAELRLQRFKSTVEQHVELYQKYSNNSWRYLGNRLLTPT DTPEWLSFDVTGVVRQWLNQGDGIQGFSAHCSCDSKDNVLHVEINGISPK RRGDLGTIHDNRPFLLLMATPLERAQHLHSSRHRR
Research Area	Signal Transduction
Source	E.coli
Target Names	Tgfb1
Expression Region	30-278aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

**Tag Info**

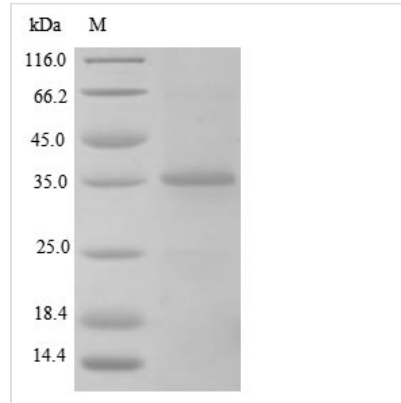
N-terminal 6xHis-tagged

Mol. Weight

34.0 kDa

Protein Length

Partial

Image

(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

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