

# Recombinant human Transforming growth factor beta-1 protein

Catalog No: #AP71968

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Package Size: #AP71968-1 20ug #AP71968-2 100ug #AP71968-3 1mg

## Description

Product Name	Recombinant human Transforming growth factor beta-1 protein
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:281-390aaSequence Info:Partial
Accession No.	P01137
Uniprot	P01137
GeneID	7040;
Calculated MW	16.6 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	DTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNP GASAPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS
Formulation	Tris-based buffer50% glycerol
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.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

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 chotaxis, proliferation and differentiation in committed osteoblasts. 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.

## References

Intron-exon structure of the human transforming growth factor-beta precursor gene.Derynck R., Rhee L., Chen E.Y., van Tilburg A.Nucleic Acids Res. 15:3188-3189(1987)Research Topic:Signal Transduction

Note: This product is for in vitro research use only