

**TGF- $\beta$ 1**  
**Catalog # PVGS1550****Specification**

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**TGF- $\beta$ 1 - Product Information**

Primary Accession [P04202](#)  
**Species**  
Mouse

**Sequence**  
Ala279-Ser390

**Purity**  
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**  
< 1 EU/  $\mu$ g of protein by LAL method

**Biological Activity**  
ED<sub>50</sub> is 5-25 pg/ml, measured by its ability to inhibit IL-4-dependent proliferation of TF-1 human erythroleukemic cells.

**Expression System**  
Human Cells

Formulation **Lyophilized from a 0.2  $\mu$ m filtered solution in 4 mM HCl.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH<sub>2</sub>O up to 100  $\mu$ g/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

**TGF- $\beta$ 1 - Additional Information**

**Gene ID** 21803

**Other Names**  
Transforming growth factor beta-1 proprotein, Latency-associated peptide, TGF-beta-1, Tgfb1 {ECO:0000312|MGI:MGI:98725}

**Target Background**  
Transforming growth factor beta 1 (TGF $\beta$ 1) is the prototype of a growing superfamily of peptide growth factors and plays a prominent role in a variety of cellular processes, including cell-cycle progression, cell differentiation, reproductive function, development, motility, adhesion, neuronal growth, bone morphogenesis, wound healing, and immune surveillance. TGF- $\beta$ 1, TGF- $\beta$ 2 and

TGF- $\beta$ 3 signal via the same heteromeric receptor complex, consisting of a ligand binding TGF- $\beta$  receptor type II (T $\beta$ R-II), and a TGF- $\beta$  receptor type I (T $\beta$ R-I). Signal transduction from the receptor to the nucleus is mediated via SMADs. TGF- $\beta$  expression is found in cartilage, bone, teeth, muscle, heart, blood vessels, hematopoietic cells, lung, kidney, gut, liver, eye, ear, skin, and the nervous system.

## **TGF- $\beta$ 1 - Protein Information**

**Name** Tgfb1 {ECO:0000312|MGI:MGI:98725}

### **Function**

Transforming growth factor beta-1 proprotein: Precursor of the Latency-associated peptide (LAP) and Transforming growth factor beta-1 (TGF-beta-1) chains, which constitute the regulatory and active subunit of TGF-beta-1, respectively.

### **Cellular Location**

[Latency-associated peptide]: Secreted, extracellular space, extracellular matrix  
{ECO:0000250|UniProtKB:P01137}

### **Tissue Location**

Expressed in cardiomyocytes (PubMed:26858265). Weakly expressed in the mammary glands, with a slight increase of expression following onset of involution (PubMed:19745830)

## **TGF- $\beta$ 1 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **TGF- $\beta$ 1 - Images**