

Rev01  
Update: Dec,06,2023

**DATASHEET**

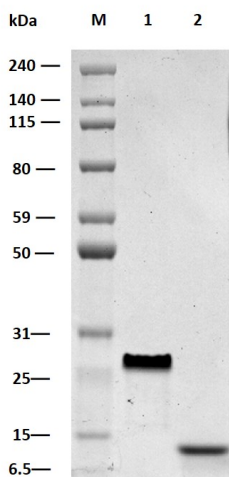
# TGF $\beta$ 1, Bovine

Cat. No.: Z03779

## Product Introduction

<b>Species</b>	Bovine
<b>Protein Construction</b>	<b>TGF-<math>\beta</math>1 (Ala279-Ser390)</b> Accession # P18341
<b>Purity</b>	$\geq$ 95% as analyzed by SDS-PAGE
<b>Endotoxin Level</b>	< 0.2 EU/ $\mu$ g of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 0.2 ng/ml, measured in ability to inhibit the mouse IL-4-dependent proliferation of HT-2 cells.
<b>Expression System</b>	CHO
<b>Theoretical Molecular Weight</b>	12.8 kDa (monomer)
<b>Apparent Molecular Weight</b>	~12 kDa, on SDS-PAGE under reducing conditions.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in 50 mM NaAc, 50 mM NaCl, pH 5.0.
<b>Reconstitution</b>	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 or 50 mM Citrate up to 100 $\mu$ g/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at lower than -70 °C. Upon reconstitution, the product should be stable for up to 1 week at 4 °C or up to 3 months at -20 °C. For long-term storage after reconstitution, it is recommended that a carrier protein (e.g., 0.1% BSA) be added. Avoid repeated freeze-thaw cycles by making single-use aliquots before the solution is stored at -20 °C.

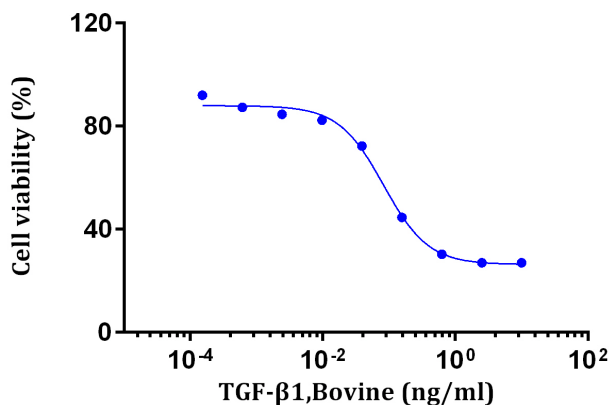
## Examples



Lane 1: 2  $\mu$ g of TGF- $\beta$ 1, Bovine, non-reducing (N)

Lane 2: 2  $\mu$ g of TGF- $\beta$ 1, Bovine, reducing (R)

The purity is greater than 95% as analyzed by SDS-PAGE



ED<sub>50</sub> < 0.2 ng/ml, measured in ability to inhibit the mouse IL-4-dependent proliferation of HT-2 cells.

## Background

**Target Background :** TGF- $\beta$ 1 (transforming growth factor beta 1) is one of three closely related mammalian members of the large TGF- $\beta$ 1 superfamily that share a characteristic cystine knot structure. TGF- $\beta$ 1, -2 and -3 are highly pleiotropic cytokines that act as cellular switches to regulate processes such as immune function, proliferation and epithelial-mesenchymal transition. Each TGF- $\beta$  isoform has some non-redundant function; for TGF- $\beta$ 1, mice with targeted deletion show defects in hematopoiesis and endothelial differentiation and died of overwhelming inflammation. TGF- $\beta$ 1 signaling begins with high-affinity binding to a type II ser/thr kinase receptor termed TGF- $\beta$  RII. This receptor then phosphorylates and activates a second ser/thr kinase receptor, TGF- $\beta$  RI (also called activin receptor-like kinase (ALK)-5), or alternatively, ALK-1. This complex phosphorylates and activates Smad proteins that regulate transcription.

**Synonyms :** TGF-beta-1; CED; DPD1; TGFB; TGF-b1; TGFB1; CEDLAP; latency-associated peptide; TGF beta; TGF-beta 1 protein; transforming growth factor beta-1

**For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.**

生产商：南京金斯瑞生物科技有限公司 江苏省南京市江宁区科学园雍熙路28号

Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28Yongxi Road, Jiangning District, Nanjing, Jiangsu, China

