

## ARG83157 Bovine TGF Beta 1 ELISA Kit

Package: 96 wells  
Store at: 4°C

### Summary

Product Description	ARG83157 Bovine TGF Beta 1 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Bovine in Serum, Plasma, Urine and Cell culture supernatants.
Tested Reactivity	Bov
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	TGF beta 1
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	2 pg/ml
Detection Range	15.6 pg/ml - 1,000 pg/ml
Sample Type	Serum, Plasma, Urine and Cell culture supernatants
Precision	Intra-Assay CV: 6.2% Inter-Assay CV: 7.1%
Alternate Names	TGFB; DPD1; TGFbeta; CED; Transforming growth factor beta-1; LAP; TGF-beta-1

### Application Instructions

Assay Time	~ 5 hours
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### Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	TGFB1
Gene Full Name	transforming growth factor, beta 1
Background	This gene encodes a member of the transforming growth factor beta (TGFB) family of cytokines, which are multifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functions in many cell types. Many cells have TGFB receptors, and the protein positively and negatively regulates many other growth factors. The secreted protein is cleaved into a latency-associated peptide (LAP) and a mature TGFB1 peptide, and is found in either a latent form composed of a TGFB1 homodimer, a LAP homodimer, and a latent TGFB1-binding protein, or in an active form composed of a TGFB1 homodimer. The mature peptide may also form heterodimers with other TGFB family members.

This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease.[provided by RefSeq, Oct 2009]

Function

Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGF $\beta$ 1 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. 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. [UniProt]

Highlight

Related products:  
[TGF beta1 antibodies](#); [TGF beta1 ELISA Kits](#);  
New ELISA data calculation tool:  
[Simplify the ELISA analysis by GainData](#)

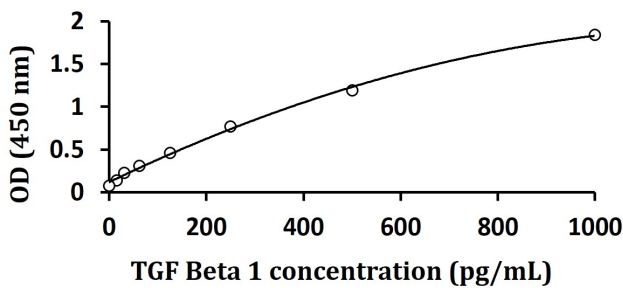
Research Area

Cancer kit; Cell Biology and Cellular Response kit; Developmental Biology kit; Metabolism kit; Signaling Transduction kit

PTM

Glycosylated.  
The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.

Images



ARG83157 Bovine TGF Beta 1 ELISA Kit standard curve image

ARG83157 Bovine TGF Beta 1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.