

# Product datasheet

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# ARG80123 Human TGF beta 1 ELISA Kit

Package: 96 wells Store at: 4°C

# Component

Cat. No.		Component Name	Package	Temp
ARG8012	23-01	Antibody-coated microplate	8 X 12 strips	4°C
ARG8012	23-02	Standard (Lyophilized)	3 X 1.8 ng/vial	4°C
ARG8012	23-03	Standard diluent buffer	20 ml	4°C
ARG8012	23-04	Antibody conjugate concentrate	400 μΙ	4°C
ARG8012	23-05	Antibody diluent buffer	16 ml	4°C
ARG8012	23-06	HRP-Streptavidin concentrate	400 μΙ	4°C (Protect from light)
ARG8012	23-07	HRP-Streptavidin diluent buffer	16 ml	4°C
ARG8012	23-08	20X Wash buffer	50 ml	4°C
ARG8012	23-09	TMB substrate	12ml	4°C (Protect from light)
ARG8012	23-10	STOP solution	12ml	4°C
ARG8012	23-11	1N HCI	5 ml	4°C
ARG8012	23-12	1N NaOH	5 ml	4°C
ARG8012	23-13	Plate sealer	4 strips	Room temperature

# Summary

Product Description	ARG80123 Human TGF beta 1 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human TGF beta 1 in Serum, Plasma, Cell culture supernatants.			
Tested Reactivity	Hu			
Tested Application	ELISA			
Specificity	No significant cross-reactivity or interference with Human TGF beta 2, TGF beta 3.			
Target Name	TGF beta 1			
Conjugation	HRP			
Conjugation Note	Substrate: TMB and read at 450 nm			
Sensitivity	15 pg/ml			
Sample Type	Serum, Plasma, Cell culture supernatants			
Standard Range	31.25 - 2000 pg/ml			

Sample Volume 100 µl

Precision CV: less than 10%

Alternate Names TGFB; DPD1; TGFbeta; CED; Transforming growth factor beta-1; LAP; TGF-beta-1

### **Application Instructions**

Assay Time

4 hours

#### **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 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. 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

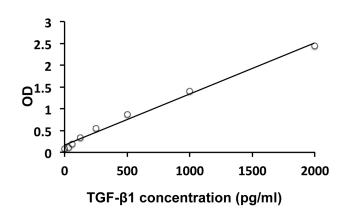
Cancer kit; Cell Biology and Cellular Response kit; Developmental Biology kit; Metabolism kit; Signaling

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.



#### ARG80123 Human TGF beta 1 ELISA Kit standard curve image

ARG80123 Human TGF beta 1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.