Human Transforming Growth factor β1,TGF-β1 ELISA kit

Product Code	CSB-E04725h
Abbreviation	TGFB1
Protein Biological Process 1	Cytokine
Target Name	transforming growth factor, beta 1
Uniprot No.	P01137
Alias	CED, DPD1, LAP, TGFB, TGFbeta, TGF-beta 1 protein|latency-associated peptide, transforming growth factor-beta1
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, cell culture supernates
Detection Range	0.78 ng/mL-50 ng/mL
Sensitivity	0.747 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	TGFB1
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-E04725h is a ready-to-use microwave, strip plate ELISA kit designed to quantitatively analyze the TGFB1 in different biological samples, including serum, plasma, and cell culture supernates. This TGFB1 ELISA kit specifically recognizes the human TGFB1 in the sample. It adopts the Sandwich ELISA technique in conjunction with an enzyme colorimetric reaction to indicate the presence of human TGFB1 and quantitatively measures the level of TGFB1 in the samples. The intensity of the colored product is positively related to the amount of human TGFB1 in the sample.

Human TGFB1 is the most abundant TGFB isoform and was cloned from the human placenta. It is a pleiotropic growth factor that exerts multiple effects on inflammation, angiogenesis, fibrosis, tissue repair, and tumor progression.

TGFB1 also exhibits various anti-inflammatory activities and contributes to immune homeostasis and inhibition of autoimmunity. TGFB1 acting as a very potent stimulator of chemotaxis stimulates monocyte, lymphocyte, neutrophil, and fibroblast migration. Dysregulated TGFB1 signaling has been associated with cellular proliferation, cancer development, and metastasis. TGFB1 upregulation mediated promotion of the epithelial-mesenchymal transition (EMT) enhances invasiveness, metastases development, angiogenesis, and immune suppression.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%
Three samples of known concentration were tested twenty times on one plate to assess.
Inter-assay Precision (Precision between assays):CV%<10%
Three samples of known concentration were tested in twenty assays to assess.

	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	20	20	20
Mean(ng/ml)	6.125	6.304	6.187	6.319	6.138	6.245
SD	0.051	0.059	0.059	0.067	0.06	0.059
CV(%)	6.899	7.772	7.979	8.817	8.200	7.900

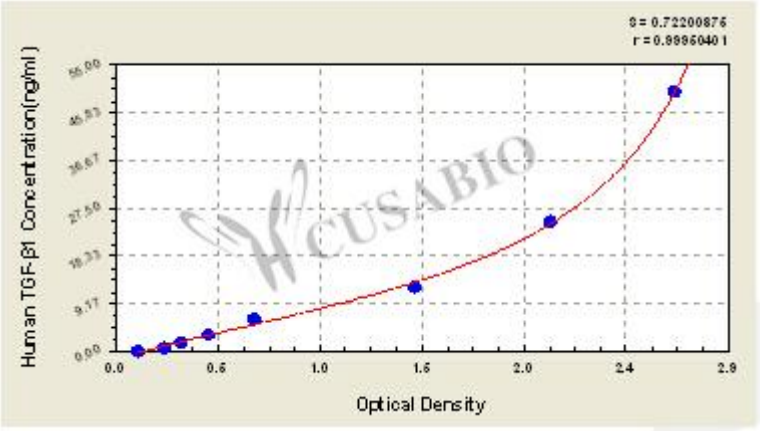
Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human TGF-β1 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	87
	Range %	82-96
1:2	Average %	92
	Range %	83-99
1:4	Average %	95
	Range %	87-108
1:8	Average %	97
	Range %	92-116

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
0	0.116	0.112	0.114	
0.78	0.245	0.237	0.241	0.127
1.56	0.311	0.331	0.321	0.207
3.12	0.445	0.458	0.452	0.338
6.25	0.640	0.698	0.669	0.555
12.5	1.436	1.425	1.431	1.317
25	2.123	2.038	2.081	1.967
50	2.701	2.644	2.673	2.559

Msds

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