Human Interleukin 33(IL-33) ELISA Kit

Product Code	CSB-E13000h
Abbreviation	IL33
Target Name	interleukin 33
Uniprot No.	O95760
Alias	C9orf26, DKFZp586H0523, DVS27, NF-HEV, NFEHEV, RP11-575C20.2, DVS27-related protein|nuclear factor from high endothelial venules
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, urine
Detection Range	15.6 pg/mL-1000 pg/mL
Sensitivity	3.9 pg/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	Immunology
Gene Names	IL33
Tag Info	quantitative
Protein Description	Sandwich

Description

The human IL-33 ELISA Kit is engineered for accurate measurement of human IL-33 levels from samples including serum, plasma, or urine. It uses the Sandwich-ELISA mechanism in combination with the enzyme-substrate chromogenic reaction to measure the IL-33 content in the sample. The color intensity is positively correlated with IL-33 content in the sample. The IL-33 concentration can be calculated according to the standard curve. This kit is tested with high sensitivity, strong specificity, good linearity, high precision and recovery, as well as lot-to-lot consistency.

IL-33 is constitutively expressed in the nucleus of epithelial, endothelial cells, and fibroblasts and participates in innate and adaptive immunity by enhancing Th2 cytokines generation. It is secreted secondary to cell apoptosis and necrosis. It functions as an 'alarmin' released following cell necrosis to alert the immune system to tissue damage or stress. IL-33 binds to a heterodimeric receptor ST2/IL-1R4 and forms a complex with the IL-1RAcP, recruiting the adaptor protein MyD88 and activating transcription factors such as NF-κB via TRAF6, IRAK-1/4, and MAP kinases and inducing the generation of

inflammatory mediators. IL-33 drives the pathogenesis of Th2-related diseases such as asthma, atopic dermatitis, and anaphylaxis because it strongly induces Th2 cytokine production. However, IL-33 has shown various protective effects on cardiovascular diseases such as atherosclerosis, obesity, and type 2 diabetes.

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.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human IL-33 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 %	89
	Range %	80-94
1:2	Average %	96
	Range %	90-99
1:4	Average %	106
	Range %	92-115
1:8	Average %	95
	Range %	86-100

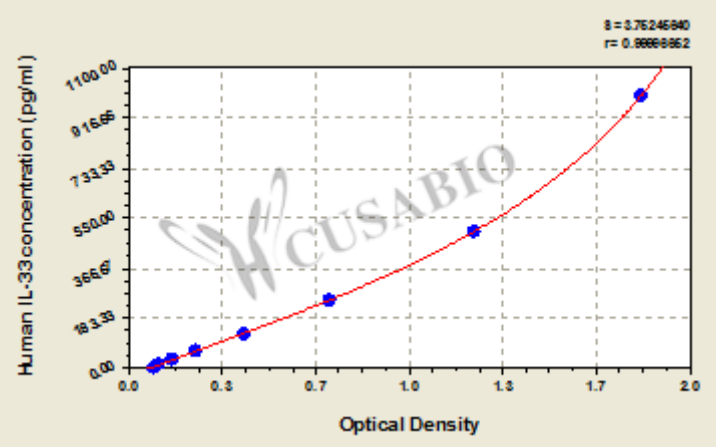
Recovery

The recovery of human IL-33 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	95	89-99
EDTA plasma (n=4)	97	90-102

Typical

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



pg/ml	OD1	OD2	Average	Corrected
1000	1.894	1.752	1.823	1.728
500	1.275	1.186	1.231	1.136
250	0.734	0.698	0.716	0.621
125	0.421	0.409	0.415	0.320
62.5	0.245	0.239	0.242	0.147
31.2	0.165	0.159	0.162	0.067
15.6	0.112	0.109	0.111	0.016
0	0.095	0.094	0.095	?

Msds

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