



Rat Soluble Cluster of differentiation 40 ligand,sCD40L ELISA Kit

Product Code	CSB-E07395r
Abbreviation	CD40LG
Target Name	CD40 ligand
Uniprot No.	Q9Z2V2
Alias	RP3-527F8.3, CD154, CD40L, HIGM1, IGM, IMD3, T-BAM, TNFSF5, TRAP, gp39, hCD40L, CD40 antigen ligand T-B cell-activating molecule TNF-related activation protein tumor necrosis factor (ligand) superfa
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Sample Types	serum, plasma, tissue homogenates
Detection Range	1.87 ng/mL-120 ng/mL
Sensitivity	0.47 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	Immunology
Gene Names	Cd40lg
Tag Info	quantitative
Protein Description	Sandwich

Description

The Rat Soluble Cluster of differentiation 40 ligand (sCD40L) ELISA Kit is a quantitative sandwich assay designed for the accurate detection and measurement of CD40 ligand protein in serum, plasma, and tissue homogenates from Rattus norvegicus (Rat) samples.

CD40 ligand (CD40L) is a protein that plays a crucial role in the immune system by providing signals for the activation of antigen-presenting cells, and its dysregulation has been linked to several immune disorders. CD40L protein plays an important role in immune response and is a prime target for inflammation. This ELISA kit provides a reliable tool for the quantitative measurement of sCD40L in Rat samples, with a detection range of 1.87 ng/mL-120 ng/mL and a sensitivity of 0.47 ng/mL.

The assay is easy to use, with a total assay time of 1-5 hours and a sample



volume of 50-100ul. The detection wavelength is 450 nm, making it compatible with most ELISA plate readers.

Target Details

This protein is expressed on the surface of T cells. It regulates B cell function by engaging CD40 on the B cell surface. A defect in this gene results in an inability to undergo immunoglobulin class switch and is associated with hyper-IgM syndrome.

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 rat sCD40L 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 %	95
	Range %	83-98
1:2	Average %	93
	Range %	87-98
1:4	Average %	91
	Range %	83-95
1:8	Average %	103
	Range %	95-107

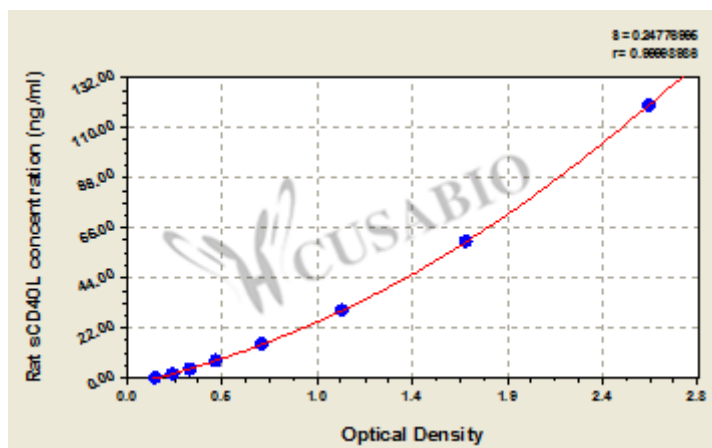
Recovery

The recovery of rat sCD40L 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)	88	82-92
EDTA plasma (n=4)	95	90-100

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
120	2.487	2.688	2.588	2.437
60	1.734	1.643	1.689	1.538
30	1.049	1.106	1.078	0.927
15	0.674	0.685	0.680	0.529
7.5	0.442	0.457	0.450	0.299
3.75	0.314	0.327	0.321	0.170
1.87	0.236	0.245	0.241	0.090
0	0.150	0.151	0.151	

Msds

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