



Rat apolipoprotein B100 (Apo-B100) ELISA Kit

Product Code	CSB-E08102r
Protein Biological Process 2	Lipogenesis and lipometabolism
Abbreviation	APOB
Protein Biological Process 1	Apolipoprotein
Target Name	apolipoprotein B (including Ag(x) antigen)
Uniprot No.	Q7TMA5
Alias	FLDB, LDLCQ4, apoB-100 apoB-48 apolipoprotein B apolipoprotein B48
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Cholesterol metabolism
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.313 µg/mL-20 µg/mL
Sensitivity	0.342 µg/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	Cardiovascular
Gene Names	Apob
Tag Info	quantitative
Protein Description	Competitive

Description

This Rat apolipoprotein B100 (Apo-B100) ELISA Kit is a tool for accurate and reliable measurement of Apob in various sample types including serum, plasma, and tissue homogenates. Apolipoprotein B-100 (Apob) is a protein found in low-density lipoproteins (LDL) and is involved in the transportation of lipids in the blood. Elevated levels of Apob have been linked to various cardiovascular diseases, including atherosclerosis.

This ELISA kit is designed specifically for the quantitative measurement of Apob in Rattus norvegicus (rat) samples. The assay principle is competitive, with a detection range of 0.313 µg/mL-20 µg/mL and a sensitivity of 0.342 µg/mL. The



assay time is relatively short, taking only 1-5 hours to obtain accurate and reliable results. The kit comes with a detection wavelength of 450 nm, making it easy to measure and analyze the data.

The Rat apolipoprotein B100 (Apo-B100) ELISA Kit is perfect for researchers in the cardiovascular and signal transduction field who require a sensitive and accurate method to measure Apob levels in rat samples. With its easy-to-follow protocol and high sensitivity, this kit is an excellent tool for the quantification of Apob in various sample types.

Target Details

This gene product is the main apolipoprotein of chylomicrons and low density lipoproteins. It occurs in plasma as two main isoforms, apoB-48 and apoB-100: the former is synthesized exclusively in the gut and the latter in the liver. The intestinal and the hepatic forms of apoB are encoded by a single gene from a single, very long mRNA. The two isoforms share a common N-terminal sequence. The shorter apoB-48 protein is produced after RNA editing of the apoB-100 transcript at residue 2180 (CAA->UAA), resulting in the creation of a stop codon, and early translation termination. Mutations in this gene or its regulatory region cause hypobetalipoproteinemia, normotriglyceridemic hypobetalipoproteinemia, and hypercholesterolemia due to ligand-defective apoB, diseases affecting plasma cholesterol and apoB levels.

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(μg/ml)	3.516	3.502	3.203	3.109	3.108	3.376
SD	0.033	0.033	0.052	0.047	0.057	0.044
CV(%)	4.819	4.830	7.348	6.452	7.945	6.348

Linearity

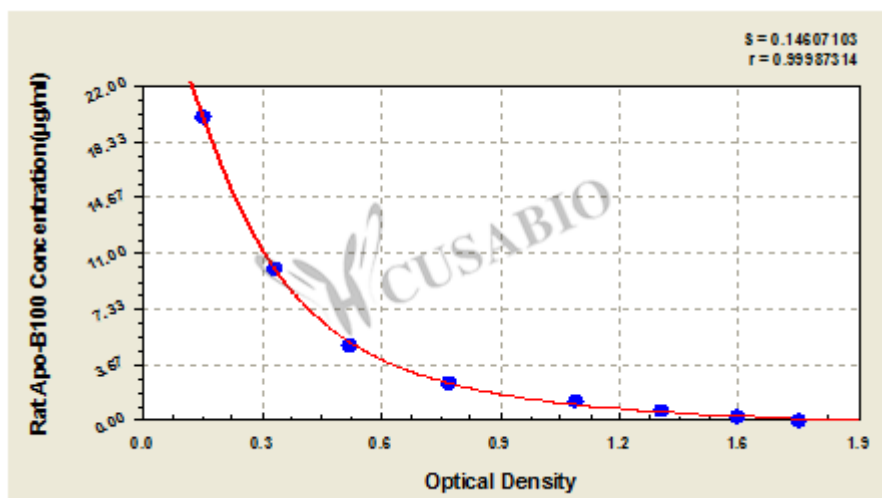
To assess the linearity of the assay, samples were spiked with high concentrations of rat Apo-B100 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:100	Average %	89
	Range %	83-96
1:200	Average %	92
	Range %	88-114
1:400	Average %	96
	Range %	91-107
1:800	Average %	90
	Range %	86-99



Typical

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



µg/ml	OD1	OD2	Average
20	0.180	0.166	0.173
10	0.370	0.349	0.360
5	0.577	0.528	0.553
2.5	0.816	0.798	0.807
1.25	1.108	1.153	1.131
0.625	1.344	1.356	1.350
0.313	1.562	1.535	1.549
0	1.781	1.630	1.706