



Mouse apolipoprotein A1(Apo-A1) ELISA Kit

Product Code	CSB-E08104m
Protein Biological Process 2	Lipogenesis and lipometabolism
Abbreviation	APOA1
Protein Biological Process 1	Biosynthesis/Metabolism
Target Name	apolipoprotein A-I
Uniprot No.	Q00623
Alias	MGC117399, OTTHUMP000000069346 OTTHUMP000000069347 OTTHUMP000000069348
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Cholesterol metabolism
Sample Types	serum, plasma, cell culture supernates, urine, tissue homogenates
Detection Range	31.25 ng/mL-2000 ng/mL
Sensitivity	7.81 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	Cardiovascular
Gene Names	Apoa1
Tag Info	quantitative
Protein Description	Sandwich

Description

This mouse APOA1 ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of mouse APOA1 in multiple samples, including serum, plasma, cell culture supernates, urine, or tissue homogenates. Antibody specific for APOA1 has been pre-coated onto the microplate. Standards and samples are pipetted into the wells and any APOA1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated APOA1 antibody is added to the wells. After washing, avidin conjugated HRP is added to the wells, forming an antibody-antigen-enzyme-labeled antibody complex. Following a wash to remove any



unbound HRP-avidin, the TMB substrate solution is added to the wells, and the color develops into blue. The color changes from blue to yellow after the addition of stop solution into the wells. The color intensity is in proportion to the amount of APOA1 bound in the initial step.

APOA1 is the major component of high-density lipoprotein (HDL) particles in plasma. It is responsible for the transport of excess cholesterol and phospholipids from peripheral tissues to the liver through an initial interaction with the ABCA1 transporter. It has atheroprotective properties. APOA1 helps scavenge fats from white blood cells within artery walls to prevent them from becoming fat overloaded, transforming into foam cells that contribute to progressive atheroma. APOA1 also exerts receptor-independent effects, such as binding to and neutralizing LPS.

Target Details

This gene encodes apolipoprotein A-I, which is the major protein component of high density lipoprotein (HDL) in plasma. The protein promotes cholesterol efflux from tissues to the liver for excretion, and it is a cofactor for lecithin cholesterolacyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. This gene is closely linked with two other apolipoprotein genes on chromosome 11. Defects in this gene are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis.

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 mouse Apo-A1 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)
1:1000	Average %	95
	Range %	90-100
1:2000	Average %	89
	Range %	84-95
1:4000	Average %	85
	Range %	80-90
1:8000	Average %	97
	Range %	92-101

Recovery

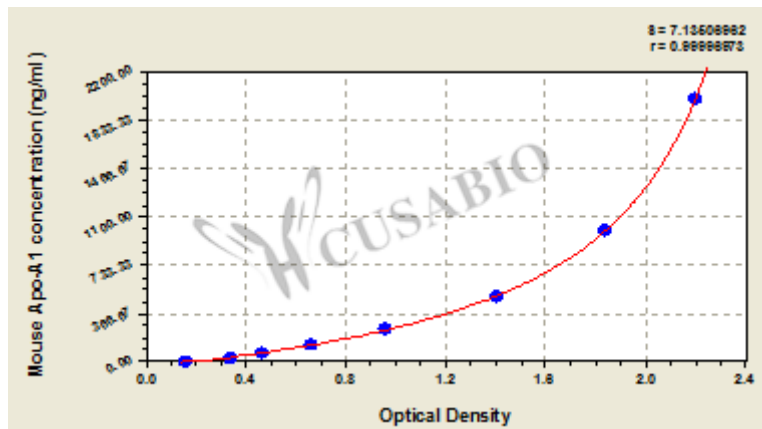
The recovery of mouse Apo-A1 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	98	93-104
EDTA plasma (n=4)	99	95-107



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
2000	2.214	2.256	2.235	2.062
1000	1.856	1.890	1.873	1.700
500	1.461	1.400	1.431	1.258
250	0.964	0.999	0.982	0.809
125	0.689	0.672	0.681	0.508
62.5	0.481	0.491	0.486	0.313
31.25	0.350	0.368	0.359	0.186
0	0.172	0.174	0.173	?

Msds

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