Human Apolipoprotein D(APOD) ELISA kit

Product Code	CSB-EL001935HU
Abbreviation	APOD
Protein Biological Process 1	Transport
Target Name	apolipoprotein D
Uniprot No.	P05090
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Transport
Sample Types	serum, plasma, tissue homogenates
Detection Range	6.25 ng/mL-400 ng/mL
Sensitivity	1.56 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	APOD
Tag Info	quantitative
Protein Description	Sandwich

Description

The human apolipoprotein D (APOD) ELISA Kit is used to quantitatively measure human APOD concentrations in serum, plasma, or tissue homogenates. It performs well in important characteristics, including sensitivity and specificity. This assay is based on the sandwich ELISA mechanism and enzyme-substrate chromogenic reaction. The solution color develops proportionally to the amount of APOD in the sample. And the intensity of the color can be measured at 450 nm via a microplate reader.

APOD is an atypical apolipoprotein with wide tissue distribution and has diverse different functions such as immune response, cell proliferation regulation, chemoreception, retinoid metabolism, axon growth, and proteolysis regulation. Plasma apoD is present mainly in HDL and, to a lesser extent, in VLDL. German Perdomo et al. demonstrated that APOD plays a significant role in lipid homeostasis and helps explain why genetic mutations in the APOD gene

predispose at-risk individuals to developing metabolic syndrome. APOD also plays a pathophysiological role in several psychiatric disorders, particularly schizophrenia.

Target Details

This gene encodes a component of high density lipoprotein that has no marked similarity to other apolipoprotein sequences. It has a high degree of homology to plasma retinol-binding protein and other members of the alpha 2 microglobulin protein superfamily of carrier proteins, also known as lipocalins. This glycoprotein is closely associated with the enzyme lecithin:cholesterol acyltransferase - an enzyme involved in lipoprotein metabolism.

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 APOD 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 %	104
	Range %	100-108
1:2000	Average %	98
	Range %	94-102
1:4000	Average %	84
	Range %	80-88
1:8000	Average %	85
	Range %	81-90

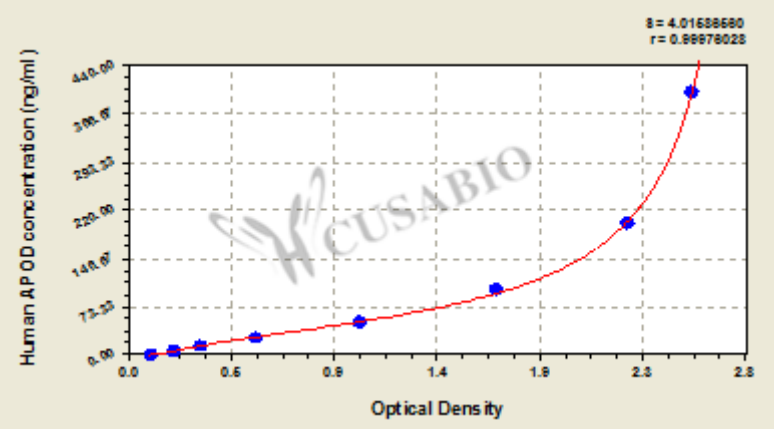
Recovery

The recovery of human APOD 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)	92	88-96
EDTA plasma (n=4)	97	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
400	2.502	2.568	2.535	2.422
200	2.228	2.268	2.248	2.135
100	1.647	1.668	1.658	1.545
50	1.035	1.060	1.048	0.935
25	0.589	0.571	0.580	0.467
12.5	0.344	0.322	0.333	0.220
6.25	0.211	0.213	0.212	0.099
0	0.111	0.115	0.113	

Msds

{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-EL001935HU.pdf","filename":"MSDS"}}