Rat fatty acid binding protein 4, adipocyte (FABP4) ELISA kit

Product Code	CSB-E13027r
Abbreviation	FABP4
Protein Biological Process 1	Transport
Target Name	fatty acid binding protein 4, adipocyte
Uniprot No.	P70623
Alias	A-FABP, aP2
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Transport
Sample Types	serum, plasma, tissue homogenates, cell lysates
Detection Range	1.56 ng/mL-100 ng/mL
Sensitivity	0.39 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	Fabp4
Tag Info	quantitative
Protein Description	Sandwich
Description	The product CSB-E13027r is a sandwich ELISA kit developed to measure concentrations of rat FABP4 in serum, plasma, cell lysates, or tissue homogenates. This assay uses the sandwich enzyme immunoassay technique in combination with the enzyme-substrate chromogenic reaction to quantify the analyte in the sample. The color develops positively to the amount of FABP4 in samples. The color intensity is measured at 450 nm via a microplate reader. FABP4, also known as A-FABP or aP2, is mainly expressed in adipocytes and functions as a lipid chaperone protein. It regulates lipolysis and adipogenesis through interactions with hormone-sensitive lipase (HSL) and peroxisome PPAR-γ, respectively. FABP4 plays an important role in the development of

insulin resistance and atherosclerosis in association with metaflammation. An increase in circulating FABP4 concentrations is linked to obesity, insulin resistance, diabetes, hypertension, cardiac dysfunction, and atherosclerosis. Reducing FABP4 levels or activity is associated with improved metabolic health.

Target Details

FABP4 encodes the fatty acid binding protein found in adipocytes. Fatty acid binding proteins are a family of small, highly conserved, cytoplasmic proteins that bind long-chain fatty acids and other hydrophobic ligands. It is thought that FABPs roles include fatty acid uptake, transport, and 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 rat FABP4 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 %	93
	Range %	88-100
1:2	Average %	85
	Range %	80-90
1:4	Average %	89
	Range %	84-99
1:8	Average %	92
	Range %	86-101

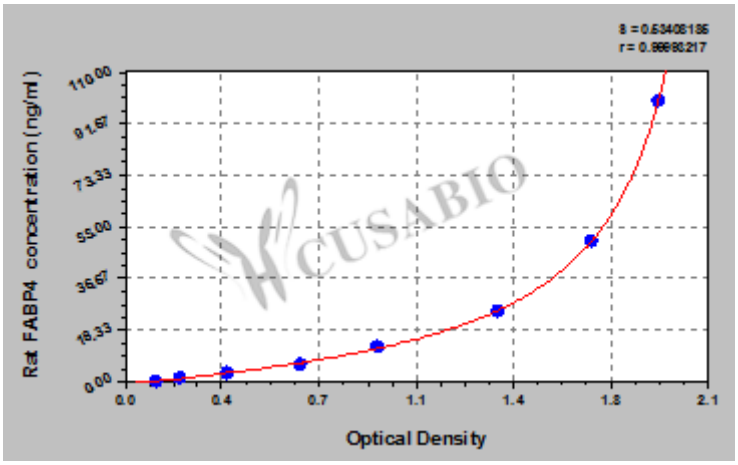
Recovery

The recovery of rat FABP4 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	90-100
EDTA plasma (n=4)	90	82-97

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
100	1.974	1.913	1.944	1.817
50	1.721	1.681	1.701	1.574
25	1.416	1.311	1.364	1.237
12.5	0.958	0.897	0.928	0.801
6.25	0.669	0.629	0.649	0.522
3.12	0.395	0.364	0.380	0.253
1.56	0.217	0.207	0.212	0.085
0	0.131	0.123	0.127	?

Msds {"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E13027r.pdf","filename":"MSDS"}}