Mouse urokinase plasminogen activator,uPA ELISA kit

Product Code	CSB-E07369m
Abbreviation	PLAU
Protein Biological Process 1	Blood Coagulation
Target Name	plasminogen activator, urokinase
Uniprot No.	P06869
Alias	ATF, UPA, URK, u-PA, U-plasminogen activator|plasminogen activator, urinary|urokinase-type plasminogen activator
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Plasminogen activation
Sample Types	serum, plasma, tissue homogenates
Detection Range	15.6 pg/mL-1000 pg/mL
Sensitivity	3.9 pg/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	Plau
Tag Info	quantitative
Protein Description	Sandwich
Description	CUSABIO's mouse urokinase plasminogen activator (uPA) ELISA kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of mouse uPA in serum, plasma, 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 uPA in samples. The color intensity is measured at 450 nm via a microplate reader. uPA (PLAU) is a serine protease that cleaves and activates plasminogen, which triggers a proteolytic cascade to regulate extracellular matrix (ECM) proteins.

The uPA and uPAR interaction is involved in various cellular activities, including cell proliferation, adhesion, invasion, and survival but is also linked to a broad range of pathological conditions including cancer, atherosclerosis, and kidney disease. In cancer, enhanced levels of the tumor-associated serine protease uPA and its receptor uPAR are linked to tumor progression, metastasis, and shortened survival in patients afflicted with this disease.

Target Details

This gene encodes a serine protease involved in degradation of the extracellular matrix and possibly tumor cell migration and proliferation. A specific polymorphism in this gene may be associated with late-onset Alzheimer s disease and also with decreased affinity for fibrin-binding. This protein converts plasminogen to plasmin by specific cleavage of an Arg-Val bond in plasminogen. Plasmin in turn cleaves this protein at a Lys-Ile bond to form a two-chain derivative in which a single disulfide bond connects the amino-terminal A-chain to the catalytically active, carboxy-terminal B-chain. This two-chain derivative is also called HMW-uPA (high molecular weight uPA). HMW-uPA can be further processed into LMW-uPA (low molecular weight uPA) by cleavage of chain A into a short chain A (A1) and an amino-terminal fragment. LMW-uPA is proteolytically active but does not bind to the uPA receptor. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

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 uPA 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 %	102
	Range %	96-107
1:2	Average %	96
	Range %	90-100
1:4	Average %	95
	Range %	89-100
1:8	Average %	98
	Range %	92-103

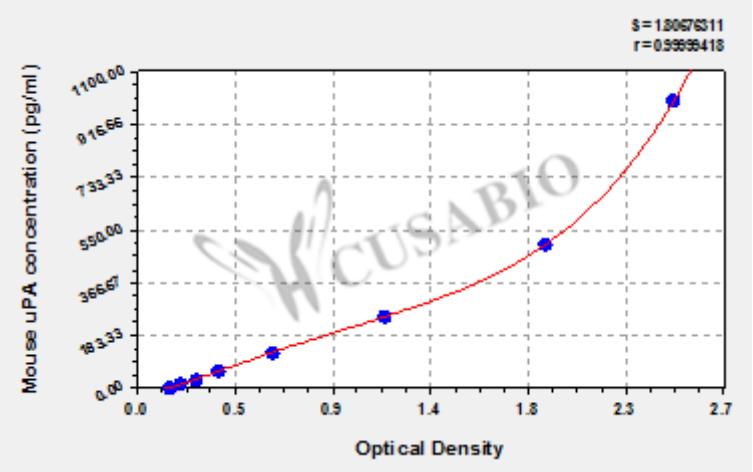
Recovery

The recovery of mouse uPA 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)	93	86-97
EDTA plasma (n=4)	101	95-106

Typical

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



pg/ml	OD1	OD2	Average	Corrected
1000	2.535	2.435	2.485	2.322
500	1.918	1.867	1.893	1.730
250	1.170	1.143	1.157	0.994
125	0.641	0.633	0.637	0.474
62.5	0.398	0.385	0.392	0.229
31.2	0.283	0.289	0.286	0.123
15.6	0.209	0.214	0.212	0.049
0	0.166	0.160	0.163	?

Msds

{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E07369m.pdf","filename":"MSDS"}}