Mouse adrenocorticotropic hormone (ACTH) ELISA kit

Product Code	CSB-E06874m
Abbreviation	ACTH
Target Name	adrenocorticotropic hormone (ACTH)
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Sample Types	serum, plasma
Detection Range	18.75 pg/mL-1200 pg/mL
Sensitivity	4.68 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	Metabolism
Gene Names	Pomc
Tag Info	quantitative
Protein Description	Sandwich

Description

The mouse ACTH ELISA kit (CSB-E06874m) is designed for the quantitative measurement of mouse ACTH protein in serum and plasma. It quantitates mouse ACTH with 4.68 pg/ml sensitivity and shows excellent specificity for mouse ACTH. It uses the bi-antibody sandwich enzyme immunoassay technique. This assay employs a biotin-conjugated ACTH antibody that recognizes the analyte bound by the immobilized ACTH antibody, forming an antibody-analyte-antibody complex. The immune complex is further detected by avidin-conjugated HRP. The TMB solution is added into the wells and turns blue and finally turns yellow after the addition of the stop solution. Solution color develops in proportion to the amount of ACTH in the sample. The O.D. value is measured using a microplate reader at 450 nm and is used to determine the concentration of the mouse ACTH in the sample.

ACTH is a tropic hormone synthesized in the basophilic cells of the anterior pituitary gland of the brain. It mainly functions to stimulate the production and release of cortisol from the cortex of the adrenal gland. ACTH is associated with Addison's disease, Cushing's syndrome, and Cushing's disease. It plays a role in glucose metabolism and immune function. Additionally, ACTH also participates in bone resorption, catabolism of proteins, anabolic effects on

muscle and bones, as well as stimulation of spermatogenesis in men.

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 ACTH 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 %	92
	Range %	80-105
1:2	Average %	96
	Range %	85-104
1:4	Average %	98
	Range %	92-104
1:8	Average %	96
	Range %	82-110

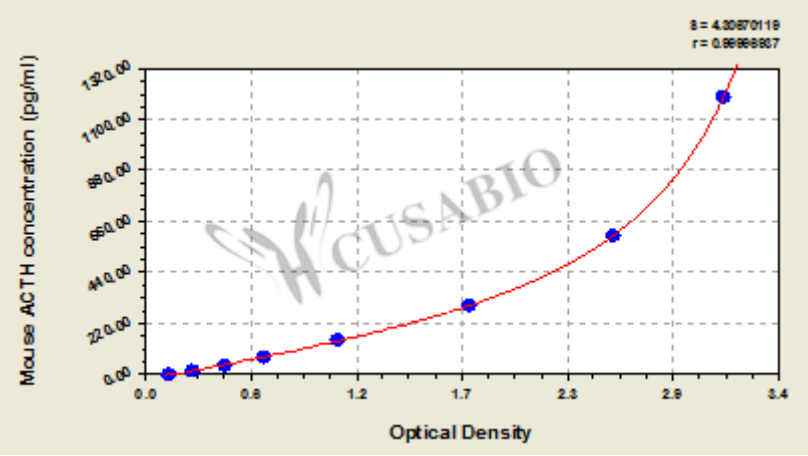
Recovery

The recovery of mouse ACTH 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	84-102
EDTA plasma (n=4)	98	90-105

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
1200	3.134	3.126	3.130	2.988
600	2.537	2.532	2.535	2.393
300	1.754	1.765	1.760	1.618
150	1.053	1.050	1.052	0.910
75	0.651	0.647	0.649	0.507
37.5	0.443	0.435	0.439	0.297
18.75	0.273	0.265	0.269	0.127
0	0.140	0.144	0.142	?

Msds

{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E06874m.pdf","filename":"MSDS"}}