

### Mouse Adiponectin ELISA Kit ab226900

SimpleStep ELISA

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#### 概述

**产品名称** 小鼠Adiponectin ELISA试剂盒

**检测方法** Colorimetric

**精确度** 批次内

样品	n	Mean	SD	CV%
Serum	5			3.7%

批次间

样品	n	Mean	SD	CV%
Serum	3			3.1%

**样品类型** Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

**检测类型** Sandwich (quantitative)

**灵敏度** 26 pg/ml

**范围** 78.1 pg/ml - 5000 pg/ml

**回收率** 特定样本回收率

样品类型	平均%	范围
Serum	108	106% - 109%
Cell culture media	102	99% - 106%
Hep Plasma	112	109% - 114%
EDTA Plasma	108	102% - 116%
Cit plasma	99	93% - 105%

**检测时间** 1h 30m

**实验步骤** One step assay

**种属反应性****与反应:** Mouse**不与反应:** Cow**产品概述**

Mouse Adiponectin ELISA Kit (ab226900) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Adiponectin protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Adiponectin with 26 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

**说明**

Adiponectin is a 30kDa monomer that combines to form trimers (low molecular weight), hexamers (middle molecular weight), and other higher molecular weight multimers. Adiponectin is an important adipokine involved in fat metabolism and insulin sensitivity. Insulin stimulates the secretion of adiponectin. Decreased levels of adiponectin are associated with insulin resistance, whereas high levels of adiponectin are associated with reduced risk of type-2 diabetes.

**平台**

Pre-coated microplate (12 x 8 well strips)

**性能****存放说明**

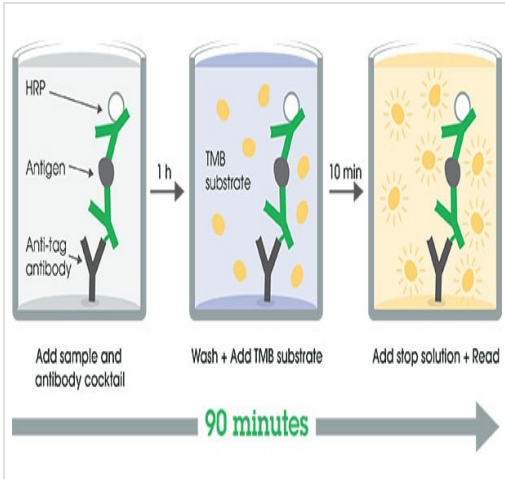
Store at +4°C. Please refer to protocols.

组件	1 x 96 tests	10 x 96 tests
10X Mouse Adiponectin Capture Antibody	1 x 600µl	10 x 600µl
10X Mouse Adiponectin Detector Antibody	1 x 600µl	10 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 4BR	1 x 6ml	10 x 6ml
Mouse Adiponectin Lyophilized Recombinant Protein	2 vials	20 vials
Plate Seals	1 unit	10 units
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	10 units

组件	1 x 96 tests	10 x 96 tests
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

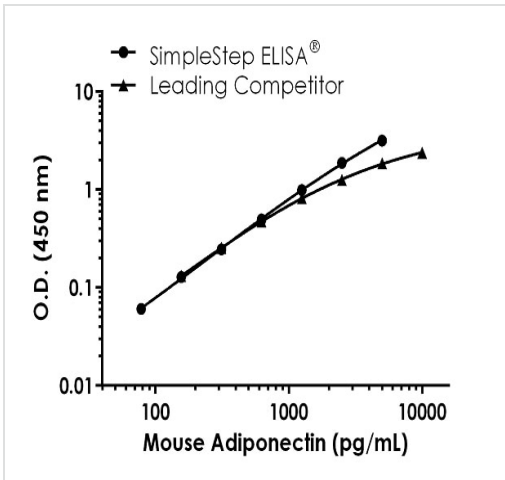
<b>功能</b>	Important adipokine involved in the control of fat metabolism and insulin sensitivity, with direct anti-diabetic, anti-atherogenic and anti-inflammatory activities. Stimulates AMPK phosphorylation and activation in the liver and the skeletal muscle, enhancing glucose utilization and fatty-acid combustion. Antagonizes TNF-alpha by negatively regulating its expression in various tissues such as liver and macrophages, and also by counteracting its effects. Inhibits endothelial NF-kappa-B signaling through a cAMP-dependent pathway. May play a role in cell growth, angiogenesis and tissue remodeling by binding and sequestering various growth factors with distinct binding affinities, depending on the type of complex, LMW, MMW or HMW.
<b>组织特异性</b>	Synthesized exclusively by adipocytes and secreted into plasma.
<b>疾病相关</b>	Defects in ADIPOQ are the cause of adiponectin deficiency (ADPND) [MIM:612556]. ADPND results in very low concentrations of plasma adiponectin. Genetic variations in ADIPOQ are associated with non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.
<b>序列相似性</b>	Contains 1 C1q domain. Contains 1 collagen-like domain.
<b>结构域</b>	The C1q domain is commonly called the globular domain.
<b>翻译后修饰</b>	Hydroxylated Lys-33 was not identified in PubMed:16497731, probably due to poor representation of the N-terminal peptide in mass fingerprinting. HMW complexes are more extensively glycosylated than smaller oligomers. Hydroxylation and glycosylation of the lysine residues within the collagene-like domain of adiponectin seem to be critically involved in regulating the formation and/or secretion of HMW complexes and consequently contribute to the insulin-sensitizing activity of adiponectin in hepatocytes. O-glycosylated. Not N-glycosylated. O-linked glycans on hydroxylysines consist of Glc-Gal disaccharides bound to the oxygen atom of post-translationally added hydroxyl groups. Sialylated to varying degrees depending on tissue. Thr-22 appears to be the major site of sialylation. Higher sialylation found in SGBS adipocytes than in HEK fibroblasts. Sialylation is not required neither for heterodimerization nor for secretion. Not sialylated on the glycosylated hydroxylysines. Desialylated forms are rapidly cleared from the circulation.
<b>细胞定位</b>	Secreted.

## 图片



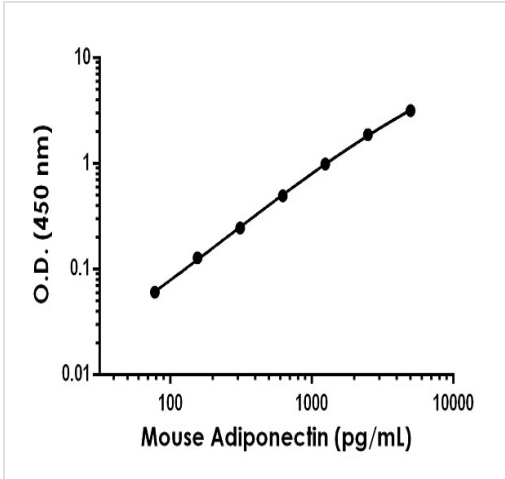
Other - Mouse Adiponectin ELISA Kit (ab226900)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



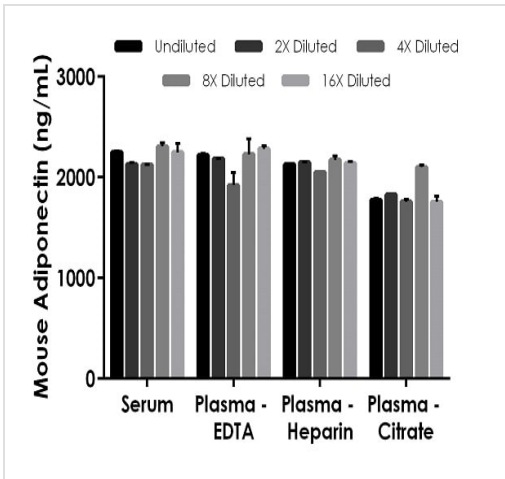
Mouse Adiponectin Competitor standard curve comparison

Standard curve comparison between Mouse Adiponectin SimpleStep ELISA® kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



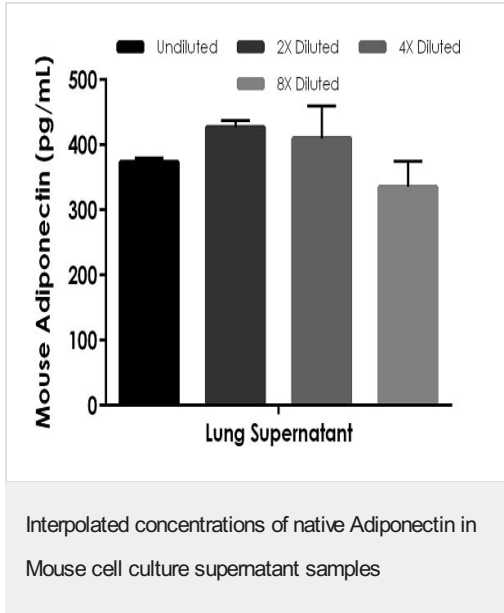
Example of Mouse Adiponectin standard curve in Sample Diluent NS

Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native Adiponectin in Mouse serum, and plasma samples

The concentrations of Adiponectin were measured in duplicates, interpolated from the Adiponectin standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:6667, plasma (EDTA) 1:6667, plasma (heparin) 1:6667, and plasma (citrate) 1:6667. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Adiponectin concentration was determined to be 2212 ng/mL in serum, 2168 ng/mL in plasma (EDTA), 2129 ng/mL in plasma (heparin) and 1845 ng/mL in plasma (citrate).



The concentrations of Adiponectin were measured in duplicates, interpolated from the Adiponectin standard curves and corrected for sample dilution. Undiluted samples are as follows: lung supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Adiponectin concentration was determined to be 386 pg/mL in lung supernatant.

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