# Mouse Peroxisome proliferator-activated receptor gamma coactivator 1-alpha (PPARGC1A) ELISA kit

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|---|---|
| **Product Code** | CSB-EL018425MO |
| **Abbreviation** | PPARGC1A |
| **Protein Biological Process 1** | Transcription/Transcription regulation |
| **Target Name** | peroxisome proliferator-activated receptor gamma, coactivator 1 alpha |
| **Uniprot No.** | O70343 |
| **Alias** | LEM6, PGC-1(alpha), PGC-1v, PGC1, PGC1A, PPARGC1, PPAR gamma coactivator variant form\|PPAR gamma coactivator-1\|ligand effect modulator-6\|peroxisome proliferative activated receptor, gamma, coactivat |
| **Product Type** | ELISA Kit |
| **Immunogen Species** | Mus musculus (Mouse) |
| **Protein Biological Process 3** | Transcription |
| **Sample Types** | serum, plasma, tissue homogenates |
| **Detection Range** | 23.5 pg/mL-1500 pg/mL |
| **Sensitivity** | 5.86 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** | Ppargc1a |
| **Tag Info** | quantitative |
| **Protein Description** | Sandwich |
| **Description** | This Mouse PPARGC1A ELISA Kit was designed for the quantitative measurement of Mouse PPARGC1A protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 23.5 pg/mL-1500 pg/mL and the sensitivity is 5.86 pg/mL. |
| **Target Details** | This protein is a transcriptional coactivator that regulates the genes involved in |

energy metabolism. This protein interacts with PPARgamma, which permits the interaction of this protein with multiple transcription factors. This protein can interact with, and regulate the activities of, cAMP response element binding protein (CREB) and nuclear respiratory factors (NRFs). It provides a direct link between external physiological stimuli and the regulation of mitochondrial biogenesis, and is a major factor that regulates muscle fiber type determination. This protein may be also involved in controlling blood pressure, regulating cellular cholesterol homoeostasis, and the development of obesity.

| 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 PPARGC1A 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 % | 86-96 |
| 1:2 | Average % | 104 |
| | Range % | 97-108 |
| 1:4 | Average % | 94 |
| | Range % | 87-98 |
| 1:8 | Average % | 99 |
| | Range % | 92-102 |

**Recovery**

The recovery of mouse PPARGC1A 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 | 87-97 |
| EDTA plasma (n=4) | 99 | 90-102 |

**Typical**

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.
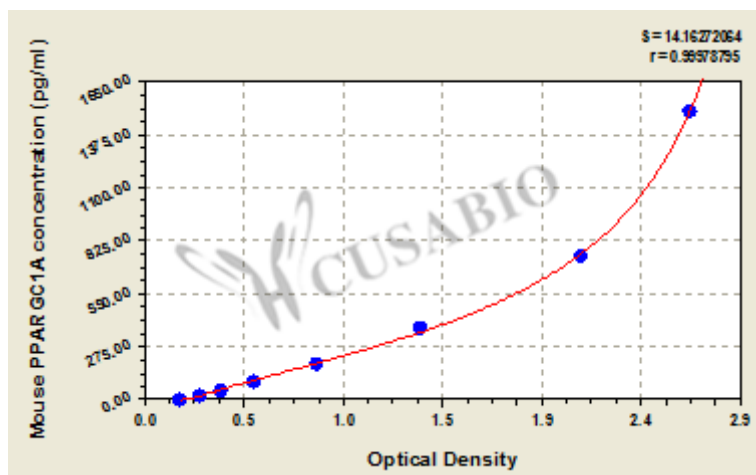
| pg/ml | OD1 | OD2 | Average | Corrected |
|-------|-------|-------|---------|-----------|
| 1500 | 2.730 | 2.582 | 2.656 | 2.466 |
| 750 | 2.181 | 2.076 | 2.129 | 1.939 |
| 375 | 1.365 | 1.345 | 1.355 | 1.165 |
| 187.5 | 0.871 | 0.832 | 0.852 | 0.662 |
| 94 | 0.550 | 0.541 | 0.546 | 0.356 |
| 47 | 0.385 | 0.378 | 0.382 | 0.192 |
| 23.5 | 0.288 | 0.279 | 0.284 | 0.094 |
| 0 | 0.192 | 0.188 | 0.190 | |

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| **Msds** | {"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-EL018425MO.pdf","filename":"MSDS"}} |