



# Rat Apolipoprotein A-IV(APOA4) ELISA kit

|                              |                                                                                                          |
|------------------------------|----------------------------------------------------------------------------------------------------------|
| Product Code                 | CSB-EL001916RA                                                                                           |
| Abbreviation                 | APOA4                                                                                                    |
| Protein Biological Process 1 | Transport                                                                                                |
| Target Name                  | apolipoprotein A-IV                                                                                      |
| Uniprot No.                  | P02651                                                                                                   |
| Alias                        | MGC142154, MGC142156                                                                                     |
| Product Type                 | ELISA Kit                                                                                                |
| Immunogen Species            | Rattus norvegicus (Rat)                                                                                  |
| Protein Biological Process 3 | Lipid transport                                                                                          |
| Sample Types                 | serum, plasma, tissue homogenates                                                                        |
| Detection Range              | 9.38 ng/mL-600 ng/mL                                                                                     |
| Sensitivity                  | 2.34 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                | Cancer                                                                                                   |
| Gene Names                   | Apoa4                                                                                                    |
| Tag Info                     | quantitative                                                                                             |
| Protein Description          | Sandwich                                                                                                 |

## Description

The Rat Apolipoprotein A-IV (APOA4) ELISA kit is a powerful tool for the quantitative detection of Apolipoprotein A-IV in serum, plasma, and tissue homogenates from Rattus norvegicus (Rat) samples.

This ELISA kit offers a wide detection range of 9.38 ng/mL to 600 ng/mL and a sensitivity of 2.34 ng/mL, enabling precise and accurate quantification of APOA4 in your samples. The assay time is short, ranging from 1 to 5 hours, and requires only a small sample volume of 50-100ul.

The assay principle is a sandwich method, where the APOA4 in the sample is captured by a coated antibody and detected by a biotinylated detection antibody, followed by a streptavidin-HRP conjugate, and finally substrate solution. The signal is detected at a wavelength of 450 nm.



This kit is suitable for research in various areas and is particularly useful for studies involving cancer and metabolism research. The Rat Apolipoprotein A-IV (APOA4) ELISA kit provides reliable and consistent results for your experiments.

### Target Details

Apolipoprotein (apo) A-IV gene contains 3 exons separated by two introns. A sequence polymorphism has been identified in the 3' UTR of the third exon. The primary translation product is a 396-residue preprotein which after proteolytic processing is secreted its primary site of synthesis, the intestine, in association with chylomicron particles. Although its precise function is not known, apo A-IV is a potent activator of lecithin-cholesterol acyltransferase in vitro.

### 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 APOA4 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) |
|--------|-----------|------------|
| 1:200  | Average % | 93         |
|        | Range %   | 87-97      |
| 1:400  | Average % | 101        |
|        | Range %   | 97-105     |
| 1:800  | Average % | 92         |
|        | Range %   | 88-96      |
| 1:1600 | Average % | 95         |
|        | Range %   | 91-101     |

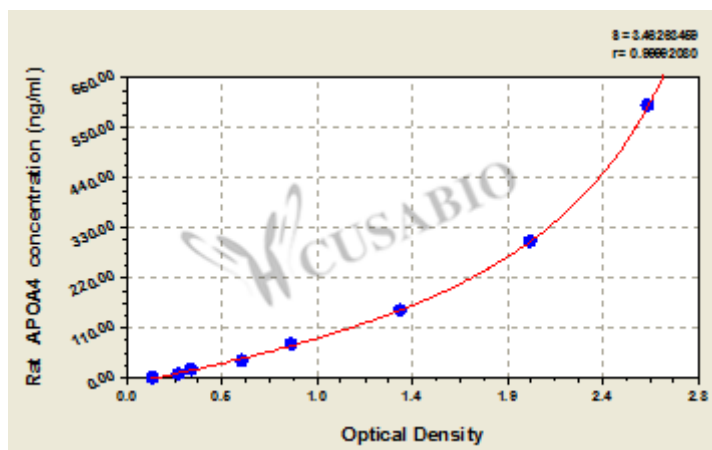
### Recovery

The recovery of rat APOA4 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)       | 94                 | 89-98 |
| EDTA plasma (n=4) | 89                 | 83-94 |

### 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 |
|-------|-------|-------|---------|-----------|
| 600   | 2.567 | 2.615 | 2.591   | 2.454     |
| 300   | 1.934 | 2.078 | 2.006   | 1.869     |
| 150   | 1.324 | 1.397 | 1.361   | 1.224     |
| 75    | 0.831 | 0.822 | 0.827   | 0.690     |
| 37.5  | 0.581 | 0.574 | 0.578   | 0.441     |
| 18.75 | 0.334 | 0.323 | 0.329   | 0.192     |
| 9.38  | 0.261 | 0.268 | 0.265   | 0.128     |
| 0     | 0.136 | 0.137 | 0.137   |           |

## Msds

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