# Rat Kidney injury molecule 1,Kim-1 ELISA Kit

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|---|---|
| **Product Code** | CSB-E08808r |
| **Abbreviation** | Kim-1 |
| **Protein Biological Process 1** | others |
| **Target Name** | hepatitis A virus cellular receptor 1 |
| **Uniprot No.** | O54947 |
| **Alias** | HAVCR, HAVCR-1, KIM-1, KIM1, TIM-1, TIM1, TIMD1, T cell immunoglobin domain and mucin domain protein 1\|kidney injury molecule 1 |
| **Product Type** | ELISA Kit |
| **Immunogen Species** | Rattus norvegicus (Rat) |
| **Sample Types** | serum, plasma, urine |
| **Detection Range** | 0.313 ng/mL-20 ng/mL |
| **Sensitivity** | 0.228 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** | Immunology |
| **Gene Names** | Havcr1 |
| **Tag Info** | quantitative |
| **Protein Description** | Sandwich |
| **Description** | CUSABIO's rat KIM-1 ELISA kit is an in vitro enzyme-linked immunosorbent assay for the quantitative determination of KIM-1 concentrations in serum, plasma, and urine. This assay exclusively recognizes rat KIM-1. The quantitative sandwich ELISA technique of this kit is based on KIM-1 antibody-KIM-1 antigen interactions and an HRP colorimetric detection system to detect the levels of KIM-1 in samples. The intensity of the color is positively proportional to the amount of bound KIM-1 in the initial step.<br><br>KIM-1 is a phosphatidylserine receptor that mediates the phagocytosis of apoptotic bodies and oxidized lipids. It is involved in HAV infections, autoimmunity, immune tolerance, and atopic diseases. In normal conditions, KIM-1 is expressed at low levels in the kidney and other organs, but its expression is remarkably increased following renal injury, especially after ischemia-reperfusion injury, enabling them to engulf apoptotic and necrotic cells |

during acute kidney injury (AKI). The urinary KIM-1 level is tightly linked to its tissue level and correspondingly related to kidney tissue damage. KIM-1 is a possible long-term renal outcome predictor in addition to being an early biomarker of AKI.

## 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.

| | Intra-Assay Precision | | | Inter-Assay Precision | | |
|---|---|---|---|---|---|---|
| Sample | 1 | 2 | 3 | 1 | 2 | 3 |
| n | 20 | 20 | 20 | 20 | 20 | 20 |
| Mean(ng/ml) | 2.480 | 2.513 | 2.532 | 2.550 | 2.528 | 2.477 |
| SD | 0.023 | 0.021 | 0.019 | 0.036 | 0.037 | 0.035 |
| CV(%) | 2.561 | 2.315 | 2.083 | 3.926 | 4.061 | 3.902 |

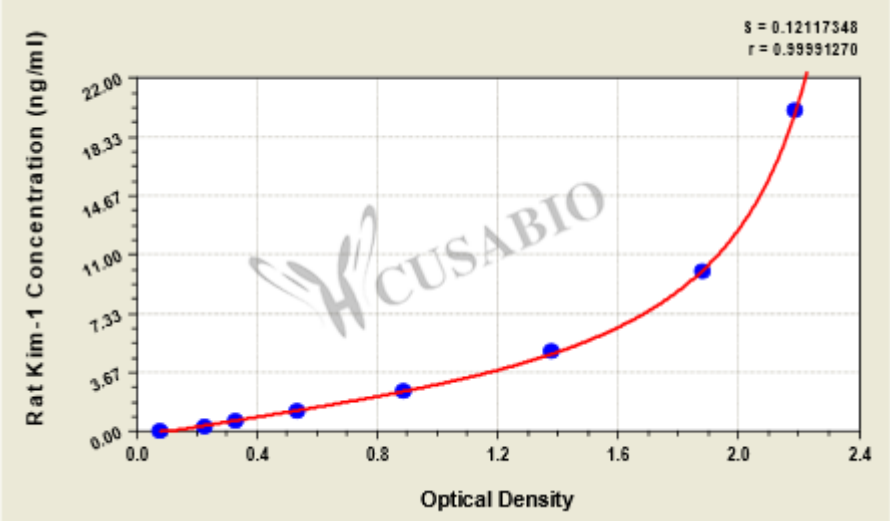
## Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of Rat Kim-1 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 % | 83 |
| | Range % | 80-94 |
| 1:2 | Average % | 86 |
| | Range % | 83-98 |
| 1:4 | Average % | 89 |
| | Range % | 86-95 |
| 1:8 | Average % | 93 |
| | Range % | 90-101 |

## 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 |
|---|---|---|---|---|
| 0 | 0.079 | 0.093 | 0.086 | |
| 0.313 | 0.237 | 0.243 | 0.240 | 0.154 |
| 0.625 | 0.337 | 0.340 | 0.339 | 0.253 |
| 1.25 | 0.535 | 0.563 | 0.549 | 0.463 |
| 2.5 | 0.921 | 0.881 | 0.901 | 0.815 |
| 5 | 1.401 | 1.396 | 1.399 | 1.313 |
| 10 | 1.943 | 1.867 | 1.905 | 1.819 |
| 20 | 2.277 | 2.149 | 2.213 | 2.127 |

**Msds**

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