



Rat Interleukin 12,IL-12/P40 ELISA KIT

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|-----------------------------|--|
| Product Code | CSB-E07362r |
| Abbreviation | IL12/P40 |
| Target Name | Interleukin 12,IL-12/P40 |
| Alias | N/A |
| Product Type | ELISA Kit |
| Immunogen Species | Rattus norvegicus (Rat) |
| Sample Types | serum, plasma, tissue homogenates |
| Detection Range | 31.25 pg/mL-2000 pg/mL |
| Sensitivity | 7.81 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 | Immunology |
| Gene Names | Il12b |
| Tag Info | quantitative |
| Protein Description | Sandwich |

Description

The rat IL-12 ELISA kit is suitable for the quantitative determination of rat IL-12 in different sample types, including serum, plasma, and tissue homogenates. This assay employs the bi-antibody sandwich technique and enzyme-substrate chromogenic reaction to quantify antigen levels in the sample. The amount of synthesized colored products is positively related to the analyte of interest in the sample.

IL-12 is a Th1 cytokine predominantly produced by cells in the innate immune system. Its role is linked to the differentiation of naïve T cells into Th1 cells. In allergy, IL-12 is known to downregulate allergic inflammation following its release, along with IFN γ . It modulates the expression of many genes involved in effector T cell function such as FasL and granzyme B. IL-12 signals through the IL-12R activate a STAT4-dependent intracellular pathway, leading to the production of IFN γ but also directly resulting in IL-18 synthesis. It is important for cancer therapy to provide a crucial bridge between innate and adaptive immunity.

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|--------------------------|---|
| 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 IL-12/P40 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 % | 102 |
| | Range % | 96-106 |
| 1:2 | Average % | 94 |
| | Range % | 90-98 |
| 1:4 | Average % | 95 |
| | Range % | 90-99 |
| 1:8 | Average % | 89 |
| | Range % | 82-94 |

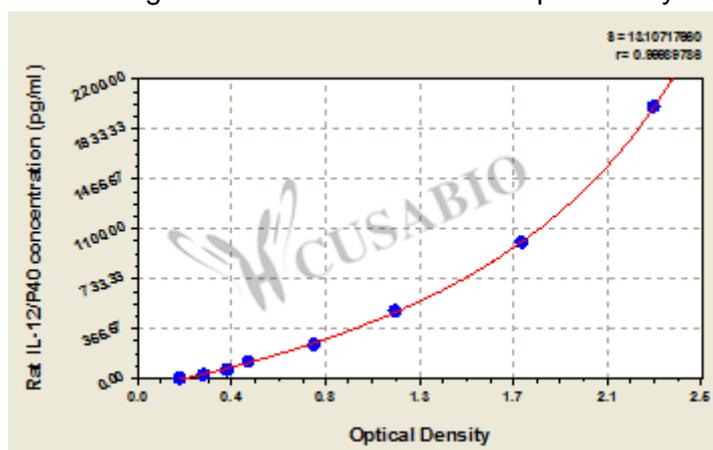
Recovery

The recovery of rat IL-12/P40 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) | 98 | 92-104 |
| EDTA plasma (n=4) | 103 | 97-107 |

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 |
|-------|-------|-------|---------|-----------|
| 2000 | 2.329 | 2.228 | 2.279 | 2.077 |
| 1000 | 1.748 | 1.647 | 1.698 | 1.496 |
| 500 | 1.152 | 1.131 | 1.142 | 0.940 |
| 250 | 0.794 | 0.783 | 0.789 | 0.587 |
| 125 | 0.506 | 0.495 | 0.501 | 0.299 |
| 62.5 | 0.415 | 0.404 | 0.410 | 0.208 |
| 31.25 | 0.308 | 0.303 | 0.306 | 0.104 |
| 0 | 0.202 | 0.201 | 0.202 | ? |

**Msd**s

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