

Datasheet for ABIN921111

IL23A ELISA Kit



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Overview

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| Quantity: | 96 tests |
| Target: | IL23A |
| Binding Specificity: | AA 20-196, AA 23-335 |
| Reactivity: | Mouse |
| Method Type: | Sandwich ELISA |
| Detection Range: | 31.2-2000 pg/mL |
| Minimum Detection Limit: | 31.2 pg/mL |
| Application: | ELISA |

Product Details

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| Purpose: | Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse IL-23 |
| Brand: | PicoKine™ |
| Sample Type: | Cell Culture Supernatant, Serum, Plasma (heparin) |
| Analytical Method: | Quantitative |
| Detection Method: | Colorimetric |
| Immunogen: | Expression system for standard: sf21 Immunogen sequence: (M23-S335)+(L20-A196) |
| Specificity: | Expression system for standard: sf21 Immunogen sequence: (M23-S335)+(L20-A196) |
| Cross-Reactivity (Details): | There is no detectable cross-reactivity with other relevant proteins. |

Product Details

Sensitivity: <2pg/mL

Material not included: Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target: IL23A

Alternative Name: IL23A ([IL23A Products](#))

Background: Protein Function: Associates with IL12B to form the IL-23 interleukin, a heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak- Stat signaling cascade, stimulates memory rather than naive T- cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis. .

Background: Interleukin-23 subunit alpha(IL-23) is a protein that in humans is encoded by the IL23A gene. IL-23 is a heterodimeric cytokine consisting of two subunits, one called p40, which is shared with another cytokine, IL-12, and another called p19(the IL-23 alpha subunit). IL-23 is an important part of the inflammatory response against infection. It promotes upregulation of the matrix metalloprotease MMP9, increases angiogenesis and reduces CD8+ T-cell infiltration. Recently, IL-23 has been implicated in the development of cancerous tumors. The International Radiation Hybrid Mapping Consortium mapped the p19 gene to chromosome 12(stSG47812).
Synonyms: Interleukin-23 subunit alpha,IL-23 subunit alpha,IL-23-A,Interleukin-23 subunit p19,IL-23p19,IL23a,

Full Gene Name: Interleukin-23 subunit alpha

Cellular Localisation: Secreted . Secreted upon association with IL12B.

Gene ID: 83430

UniProt: [Q9EQ14](#)

Pathways: [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Activated T Cell Proliferation](#)

Application Details

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| Application Notes: | Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing. |
| Comment: | Tissue Specificity: Secreted by activated dendritic cells (at protein level). Detected in various tissues with higher expression in polarized Th1 cells and activated macrophages. . |
| Plate: | Pre-coated |
| Protocol: | mouse IL-23 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IL-23 has been precoated onto 96-well plates. Standards(sf21, (M23-S335)+(L20-A196)) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-23 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse IL-23 amount of sample captured in plate. |
| Assay Procedure: | Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL mouse IL-23 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernatant, serum or plasma (heparin) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IL-23 standard solution and each sample be measured in duplicate. |
| Assay Precision: | <ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 255, Standard deviation: 11.73, CV(%): 4.6• Sample 2: n=16, Mean(pg/ml): 717, Standard deviation: 40.87, CV(%): 5.7• Sample 3: n=16, Mean(pg/ml): 1147, Standard deviation: 68.82, CV(%): 6,• Sample 1: n=24, Mean(pg/ml): 325, Standard deviation: 18.85, CV(%): 5.8• Sample 2: n=24, Mean(pg/ml): 836, Standard deviation: 53.5, CV(%): 6.4• Sample 3: n=24, Mean(pg/ml): 1327, Standard deviation: 95.5, CV(%): 7.2 |
| Restrictions: | For Research Use only |

Handling

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| Handling Advice: | Avoid multiple freeze-thaw cycles. |
| Storage: | -20 °C, 4 °C |
| Storage Comment: | Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles |
| Expiry Date: | 12 months |

Publications

Product cited in: Romano, Chiaro, Lucarelli, Santarelli, Cucchiara, Guadagnini, Miele, Di Nardo: "Mucosal cytokine profiles in paediatric eosinophilic oesophagitis: A case-control study." in: **Digestive and liver disease : official journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver**, (2014) ([PubMed](#)).

Images

