

Datasheet for ABIN411310

## IL12A ELISA Kit



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### Overview

Quantity:	96 tests
Target:	IL12A
Binding Specificity:	AA 23-215, AA 23-335
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

### Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse IL-12(p70)
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: (M23-S335)+(R23-A215)
Specificity:	Expression system for standard: sf21 Immunogen sequence: (M23-S335)+(R23-A215)
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

## Product Details

Sensitivity:	<1.5pg/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:	IL12A
Alternative Name:	IL12A ( <a href="#">IL12A Products</a> )
Background:	<p>Background: Interleukin(IL)-12 is a 70-KDa cytokine comprised of two disulfide-linked proteins(p35 and p40) and is essential for the initiation of effective immune response. And the IL-12p70 is a heterodimer of p35 and p40 subunits, it is an important cytokine secreted by antigen-presenting cells in response to antigenic stimulation. Gene expression analysis of the IL-12 cytokine family subunits revealed that both strains induced high levels of p40(protein chain communal to IL-12 p70 and IL-23) as well as p19, a subunit of IL-23. Conversely only ACT- 18HS19 infection induced consistent transcription of IL-12 p35, a subunit of IL-12 p70. The standard product used in this kit is recombinant mouse IL-12 p70 comprising of a 193 amino acids p35 chain and a 313 amino acids p40 chain connected by a disulfide bond.</p> <p>Synonyms: Interleukin-12 subunit alpha ,IL12a ,</p> <p>Full Gene Name: interleukin 12A</p>
Gene ID:	16159
UniProt:	<a href="#">F8WI71</a>
Pathways:	<a href="#">JAK-STAT Signaling</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Activated T Cell Proliferation</a>

## Application Details

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.
Plate:	Pre-coated
Protocol:	mouse IL-12(P70) ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IL-12(P70) has been precoated onto 96-well plates. Standards(sf21, (M23-S335)+(R23-A215)) and test samples are added to

## Application Details

the wells, a biotinylated detection polyclonal antibody from goat specific for IL-12(P70) 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-12(P70) amount of sample captured in plate.

**Assay Procedure:** Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL mouse IL-12(P70) 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 supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IL-12(P70) standard solution and each sample be measured in duplicate.

**Assay Precision:**

- Sample 1: n=16, Mean(pg/ml): 97, Standard deviation: 6.5, CV(%): 6.7
- Sample 2: n=16, Mean(pg/ml): 367, Standard deviation: 25.7, CV(%): 7
- Sample 3: n=16, Mean(pg/ml): 633, Standard deviation: 34.2, CV(%): 5.4,
- Sample 1: n=24, Mean(pg/ml): 123, Standard deviation: 9.23, CV(%): 7.5
- Sample 2: n=24, Mean(pg/ml): 408, Standard deviation: 33.05, CV(%): 8.1
- Sample 3: n=24, Mean(pg/ml): 657, Standard deviation: 38.8, CV(%): 5.9

**Restrictions:** For Research Use only

## Handling

**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:** Fernández, Baldassarro, Sivilia, Giardino, Calzà: "Inflammation severely alters thyroid hormone signaling in the central nervous system during experimental allergic encephalomyelitis in rat: Direct impact on OPCs differentiation failure." in: **Glia**, Vol. 64, Issue 9, pp. 1573-89, (2016) ([PubMed](#)).

Vidart, Wajner, Leite, Manica, Schaan, Larsen, Maia: "N-acetylcysteine administration prevents

nonthyroidal illness syndrome in patients with acute myocardial infarction: a randomized clinical trial." in: **The Journal of clinical endocrinology and metabolism**, Vol. 99, Issue 12, pp. 4537-45, (2014) ([PubMed](#)).

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