

Datasheet for ABIN411309

IL12A ELISA Kit[Go to Product page](#)**1** Image**9** Publications

Overview

Quantity:	96 tests
Target:	IL12A
Binding Specificity:	AA 23-219, AA 23-328
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	7.8-500 pg/mL
Minimum Detection Limit:	7.8 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human 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: (I23-S328)+(R23-S219)
Specificity:	Expression system for standard: sf21 Immunogen sequence: (I23-S328)+(R23-S219)
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: IL12A

Alternative Name: IL12A ([IL12A Products](#))

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.[i] 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.[ii] 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.[iii] The standard product used in this kit is recombinant human IL-12 p70 with the molecular mass of 75 KDa.

Synonyms: Interleukin 12 ,Interleukin 12, P35 ,Interleukin 12A (Natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) ,Interleukin 12A (Natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35), isoform CRA_a ,IL12A ,hCG_1685939 ,

Full Gene Name: interleukin 12A

Gene ID: 3592

UniProt: [O60595](#)

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

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

Application Details

Protocol: human IL-12(P70) ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-12(P70) has been precoated onto 96-well plates. Standards(sf21, (I23-S328)+(R23-S219)) and test samples are added to 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 human IL-12(P70) amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL, 7.8pg/mL human 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 human cell culture supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human IL-12(P70) standard solution and each sample is measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 44, Standard deviation: 2.16, CV(%): 4.9
- Sample 2: n=16, Mean(pg/ml): 127, Standard deviation: 7.24, CV(%): 5.7
- Sample 3: n=16, Mean(pg/ml): 283, Standard deviation: 17.83, CV(%): 6.3,
- Sample 1: n=24, Mean(pg/ml): 67, Standard deviation: 3.89, CV(%): 5.8
- Sample 2: n=24, Mean(pg/ml): 158, Standard deviation: 9.48, CV(%): 6
- Sample 3: n=24, Mean(pg/ml): 322, Standard deviation: 23.2, CV(%): 7.2

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:

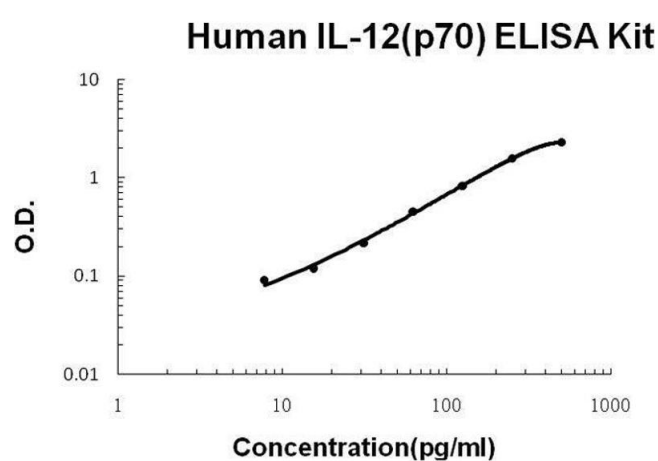
Publications

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](#)).

There are more publications referencing this product on: [Product page](#)

Images



ELISA

Image 1. Human IL-12(p70) PicoKine ELISA Kit standard curve