

IL-4 elisa kit

IL-4 ELISA Kit

CATALOG #
AAA72660

PRODUCT SYNONYMS

IL-4; IL-4 ELISA Kit; Interleukin-4; IL-4 elisa kit

PRODUCT SPECIFICATIONS

Specificity	This ELISA is specific for the measurement of natural and recombinant human IL-37. It does not cross-react with human IL-33, human IL-6, human IL-23, human IL-24, human adiponectin, human vaspin, human clusterin, human GPX3, human ANGPTL4, human RBP4, human FTO, human Sirtuin2, human calreticulin, human FABP4, human CTRP5, mouse IL-33, mouse adiponectin, rat adiponectin, rat Nampt.
Sequence Length	133
Samples	Serum And Plasma
Assay Type	Sandwich
Detection Range	0.016 ng/ml-1 ng/ml
Sensitivity	10 pg/ml
Intra-assay Precision	Five samples of known concentrations of IL-37 were assayed in replicates 4 times to test precision within an assay
Inter-assay Precision	Six samples of known concentrations of IL-37 were assayed in 6 separate assays to test precision between assays.
Preparation and Storage	2 - 8 degree C

IMAGES

Typical Data & Standard Curve
Results of a typical standard run of a human IL-4 ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A most applications)

X	pg/ml	0	15.6	31.2	62.5	125	250	500	1000
Y	OD450	0.037	0.075	0.117	0.169	0.336	0.632	1.145	2.314

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL-4 elisa kit	Intended Uses: The IL-37 human ELISA is to be used for the measurement of human IL-37 in serum and plasma. This ELISA kit is for research use only. Principle of the Assay: This assay is a sandwich Enzyme Linked-Immunesorbent Assay (ELISA) for the measurement of human IL-37 in biological fluids. A polyclonal antibody specific for IL-37 has been pre-coated onto the 96-well microtiter plate. Standards and samples are pipetted into the wells for binding to the coated antibody. After extensive washing to remove unbound compounds, IL-37 is recognized by the addition of a polyclonal antibody specific for IL-37 (Detection Antibody). After removal of excess polyclonal antibody, HRP conjugated anti-rabbit IgG (HRP) is added. Following a final washing, peroxidase activity is quantified using the substrate 3,3',5,5'-tetramethylbenzidine (TMB). The intensity of the color reaction is measured at 450 nm after acidification and is directly proportional to the concentration of IL-37 in the samples!!Background/Introduction: The cytokine interleukin-1 elicits a wide array of biologic activities that initiate and promote the host response to injury or infection by activating a set of transcription factors, including NFkB and AP1, which in turn induce production of effectors of the inflammatory response. By computational cloning a cDNA encoding IL-1F7 was isolated to some homology to IL-1 originally called FIL1-zeta. The deduced 192-amino acid protein contains a 15-to 30-amino acid prodomain. Although there are multiple splicing variants, IL-1F7b isoform is a 30 kDa protein and shares critical amino acid residues with IL-18 (1-2). After rigorous activity tests IL-1F7 was officially designated IL-37 (3). IL-37 mRNA has been detected in various hematopoietic organs as well as in other tissues (1). It has been shown that IL-37 is strongly expressed intracellularly in human monocytes whose expression can be further upregulated by LPS (4). IL-37 was shown to bind to the IL-18R without eliciting signal transduction (5). An immunologic capability associated with IL-37 was shown that intratumoral expression of IL-37 by adenovirus induces Th1-dependent anti-tumor immunity (6). Although IL-37 does not contain a canonical signal peptide at the NH2-terminus, multiple protein species of IL-37 were detected in the culture supernatants with an overexpression of IL-37 (6). One interesting feature IL-37 exhibits is that upon LPS stimulation the NH2-terminal prodomain encompassing 1st-45th amino acid residues is cleaved by caspase-1 and the resulting mature IL-37 actively translocates into the nucleus, suppressing the induction of TNF-alpha, IL-6, and MIP-2. Interaction of Smad3 with the translocated IL-37 has been an acting mechanism for the IL-37-mediated anti-inflammation (3), suggesting that IL-37 is a potent inhibitor of innate immunity. Measurement of intracellular IL-37 upon danger signals or proinflammatory cues would provide a novel insight into anti-inflammation.
Product Categories/Family for IL-4 elisa kit	Immunology; Cytokines & Cell Signalling; Research Assays; Assay Categories

NCBI AND UNIPROT INFORMATION

NCBI GI #	55742622
NCBI GeneID	397225
NCBI Accession #	NP_999288.1
NCBI GenBank Nucleotide #	NM_214123.1
Molecular Weight	15,023 Da
NCBI Official Full Name	interleukin-4
NCBI Official Symbol	IL4
NCBI Protein Information	interleukin-4
UniProt Protein Name	Interleukin-4
UniProt Gene Name	IL4
UniProt Synonym Gene Names	IL-4; BSF-1
UniProt Entry Name	IL4_PIG

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.