

Interleukin-13 ELISA Kit | IL-13 elisa kit

Interleukin-13 (IL-13)

CATALOG #
AAA77878

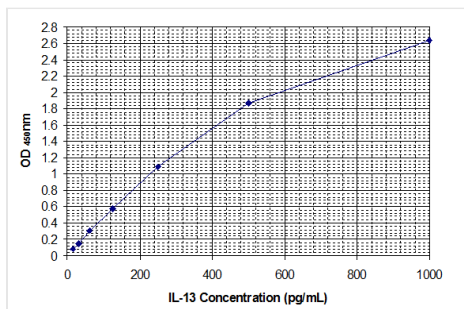
PRODUCT SYNONYMS

Interleukin-13; Interleukin-13 (IL-13); IL-13 elisa kit

PRODUCT SPECIFICATIONS

Specificity	This sandwich ELISA recognises both natural and recombinant human IL-13 Ra2. This kit has been tested and exhibited no significant cross-reactivity with following cytokines and growth factors: IL-1 alpha, IL-1beta, IL-2, ?IL-2sRa, IL-4, ?IL-5, IL-6, IL-7, IL- 8, IL-10, IL-11, IL-12, IL-17A, IL-15, FGF basic, GM-CSF, IFN-gamma, M-CSF, MCP-1(MCAF), MCP3, EGF, TNF- alpha, TNF- beta.
Sequence Length	146
Samples	Cell Culture Supernatant
Assay Type	Sandwich
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by replicates of 8 in 1 assay.
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by replicates on 8 different assays.
Intended Uses	This Human Interleukin 13 ELISA Kit is to be used for the in vitro quantitative determination of human interleukin 13 concentrations in cell culture supernatant. This kit is intended FOR LABORATORY RESEARCH USE ONLY and is not for use in therapeutic procedures.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL-13 elisa kit	Principle of the assay: This assay applies the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific to IL-13 has been pre-coated onto a microplate. Standards and samples are then added to the appropriate plate wells with a biotin-conjugated antibody preparation specific for IL-13 and incubated. IL-13 if present, will bind and become immobilized by the antibody pre-coated on the wells and then be "sandwiched" by biotin conjugate. Avidin is a tetramer containing four identical subunits that each has a high affinity-binding site for biotin. After washing away any unbound substances, avidin- Horseradish Peroxidase (HRP) will be added to each well and incubated. Following a wash to remove any unbound antibody-enzyme reagent, a substrate solution is added to the wells and only those wells that contain IL-13, biotin conjugated antibody and enzymeconjugated Avidin will exhibit a change in colour. The colour development is stopped and the intensity of the colour is measured. In order to measure the concentration of IL-13 in the samples, this package of reagent includes two calibration diluents (Calibrator Diluent I for serum/plasma testing and Calibrator Diluent II for cell culture supernatant testing.) According to the testing system, the provided standard is diluted (2-fold) with the appropriate Calibrator Diluent and assayed at the same time as the samples. This allows the operator to produce a standard curve of Optical Density (O.D) versus IL-13 concentration. The concentration of IL-13 in the samples is then determined by comparing the O.D. of the samples to the standard curve. Background: IL-13 is a 10kD unglycosylated protein, secreted mainly by activated T helper 2 cells. IL- 13 binds to IL-4Ralpha in addition to IL-13Ralpha1 and IL-13Ralpha2. And the function of IL-13 partially overlaps with IL-4. Both IL-4 and IL-13 link to signal transducer and activator of transcription 6 (STAT6) through the receptor activation. IL-13 can induce B-cell proliferation and IgE classs switching. However, IL-13 is less competent in this function comparing with IL-4. Unlike IL-4, IL-13 does not play an important role in hematopoietic cell shift, such as naïve T helper 0 differentiation to T helper 2. IL-13 signaling is significant in inducing physiological changes to non-immuno cells in parasitized organs. For example, IL-13 induces enhanced gut contractions and glycoprotein hypersecretion which lead to the detachment of helminthes from gut wall. Eggs produced by Schistosoma mansoni can be limited inside granulomas formed through IL-13 induced cell changes. To organisms resided inside cells, IL-13 seemed to inhibit the clearance from host cell through antagonizing Th1 responses. IL-13 is also associated with many features of the allergic airway diseases, including mucus hypersecretion, goblet metaplasia, chemokine induction and recruitment of effector cells. All of them contribute to airway obstruction. Polymorphisms in IL-13 gene have been found to link to increased eosinophil count, serum total IgE and high risk of asthma.
Product Categories/Family for IL-13 elisa kit	ELISA Kits for Human Cytokines and Receptors

NCBI AND UNIPROT INFORMATION

NCBI GI #	26787978
NCBI GeneID	3596
NCBI Accession #	NP_002179.2
NCBI GenBank Nucleotide #	NM_002188.2
Molecular Weight	15,816 Da
NCBI Official Full Name	interleukin-13
NCBI Official Synonym Full Names	interleukin 13
NCBI Official Symbol	IL13
NCBI Official Synonym Symbols	P600; IL-13
NCBI Protein Information	interleukin-13
UniProt Protein Name	Interleukin-13
UniProt Gene Name	IL13
UniProt Entry Name	IL13_HUMAN

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.

