

Human IL-13 ELISA Kit | IL-13 elisa kit

Human IL-13 ELISA KIT

CATALOG #
AAA309855

REACTIVITY
Human

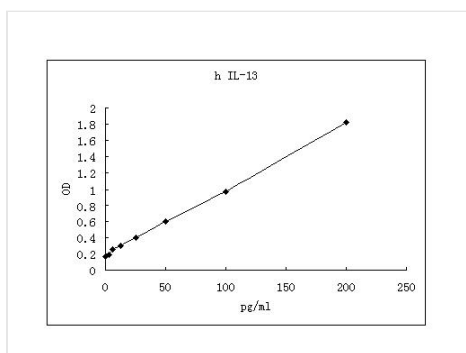
PRODUCT SYNONYMS

IL-13; Human IL-13 ELISA KIT; Human IL-13; IL-13 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant Human IL-13 Ligand
Assay Type	Solid Phase Sandwich ELISA
Samples	Cell culture supernatant, serum, plasma (EDTA, citrate, heparin)
Detection Range	3.125-200pg/mL
Sensitivity	1pg/mL
Assay Time	3 hours
Sample Volume	20 uL
Detection Method	Colorimetric
Preparation and Storage	Store at 4 degree C

IMAGES



Standard Curve (Sample)

Representative standard curve for IL-13 ELISA. IL-13 was diluted in serial two-fold steps in Sample Diluent.

ADDITIONAL INFORMATION

Related Product Information for IL-13 elisa kit	Interleukin-13 (IL-13) is a 17 kDa immunoregulatory cytokine that plays a key role in the pathogenesis of allergy, cancer, and tissue fibrosis (1-3). It is secreted by Th1, Th2, Th17, NK, and mast cells, visceral smooth muscle cells, eosinophils, and basophils (2, 4). This pattern is similar to the expression of Interleukin-4 (IL-4) but also includes subsets of Th1 and Th17 cells that do not secrete IL-4 (5). IL-13 circulates as a monomer and has two internal disulfide bonds that contribute to its bundled four a-helix configuration (6, 7). Mature human IL-13 shares approximately 58% amino acid sequence identity with mouse and rat IL-13. Despite the low homology, it exhibits cross-species activity between human, mouse, and rat (8, 9). IL-13 suppresses the production of proinflammatory cytokines and other cytotoxic substances by macrophages, fibroblasts, and endothelial cells. On B cells, it promotes cellular activation, immunoglobulin class switching to IgE, and the upregulation of CD23/Fcγ RII. Polymorphisms and upregulation of IL-13 are associated with atopy, asthma, airway hyperresponsiveness, and tissue fibrosis (1, 10).The biological effects of IL-13 and IL-4 are closely related due in part to a shared receptor system. IL-13 binds with low affinity to the transmembrane IL-13 Ra1 which then forms a signaling complex with the transmembrane IL-4 Ra (11-13). This high affinity receptor complex also functions as the type 2 IL-4 receptor (11, 12). Soluble forms of IL-4 Ra are expressed which retain ligand binding properties and inhibit IL-4 bioactivity (14, 15). IL-4 Ra also associates with the common gamma chain (gc) to form the type 1 IL-4 receptor complex (16, 17).Additionally, IL-13 binds with high affinity to IL-13 Ra2 which is expressed as cell surface and soluble forms (18-20). IL-13 Ra2 functions as a decoy receptor by preventing IL-13 from signaling through the IL-13 Ra1/IL-4 Ra complex (21, 22). It also inhibits responsiveness to IL-4 by blocking signaling through IL-4-occupied IL-13 Ra1/IL-4 Ra receptor complexes (22, 23). IL-13 Ra2 is upregulated during Th2-biased immune responses and limits inflammatory tissue damage (20, 24, 25). Aside from its decoy function, IL-13 Ra2 can signal in response to IL-13 to directly promote tumor cell invasiveness and the development of tissue fibrosis (26-28).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	26787978
NCBI GeneID	3596
NCBI Accession #	NP_002179.2
NCBI GenBank Nucleotide #	NM_002188.2
UniProt Accession #	P35225; O43644; Q4VB52; Q9UDC7
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 Synonym Gene Names	NC30; IL-13

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.