

Interleukin-6 Soluble Receptor ELISA Kit | IL-6 sR elisa kit

Interleukin-6 Soluble Receptor (IL-6 sR)

CATALOG #
AAA77850

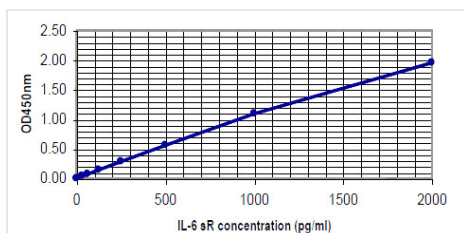
PRODUCT SYNONYMS

Interleukin-6 Soluble Receptor; Interleukin-6 Soluble Receptor (IL-6 sR); IL-6 sR elisa kit

PRODUCT SPECIFICATIONS

Specificity	This sandwich ELISA recognises both natural and recombinant human IL-17A. This kit has been tested and exhibited no significant cross-reactivity with following human cytokines and growth factors: IL-1alpha, IL-1beta, IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-11, IL-12, IL-13Ra2, FGF basic, GM-CSF, IFN-gamma, M-CSF, MCP-1(MCAF), MCP3, EGF, TNF-alpha, TNF-beta.
Sequence Length	918
Samples	Serum, Plasma, Cell Culture Supernatant, And Other Biological Fluids
Assay Type	Quantitative Sandwich
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by replicates of twenty in 1 assay
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by replicates on 6 different assays.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL-6 sR elisa kit	Intended Uses: This Human Interleukin-17A ELISA Kit is to be used for the in vitro quantitative determination of human interleukin-17A (IL-17A) concentrations in serum, plasma, cell culture supernatant, and other biological fluids. This kit is intended for LABORATORY RESEARCH ONLY. Principle of the Assay: This IL-17A enzyme linked immunosorbent assay (ELISA) applies a technique called a quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific to IL-17A. Standards or samples are then added to the appropriate microtiter plate wells. A biotin-conjugated antibody preparation specific for IL-17A was added and incubated. IL-17A, if present, will bind and become immobilized by the antibody pre-coated on the wells. The microtiter plate wells are thoroughly washed to remove unbound IL-17A and other components of the sample. Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. Avidin is a tetramer containing four identical subunits that each has a high affinity-binding site for biotin. The wells are thoroughly washed to remove all unbound HRP-conjugated Avidin, and a TMB (3,3',5, 5' tetramethyl-benzidine) substrate solution is added to each well. The enzyme (HRP) and substrate are allowed to react over a short incubation period. Only those wells that contain IL-17A, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. In order to measure the concentration of IL-17A in the samples this kit 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-17A concentration (pg/mL). The concentration of IL-17A in the samples is then determined by comparing the O.D. of the samples to the standard curve!!Background/Introduction: Interleukin-17A (IL-17A) is a secreted, homodimeric glycoprotein linked by disulfide link with a molecular mass of 35 Kilo Dalton. The cytokine is the proto-type of a newly discovered pro-inflammatory cytokine family which consists of IL-17A, IL-17B, IL-17C, IL-17D, IL-17E (IL-25) and IL-17F. All the IL-17s have similar structure with four highly conserved cysteine residues and same 3 dimensional structures, which distinguish this family from other cytokines. IL-17 is produced by a group of CD4 T help cells termed Th17 cells. In addition to previous discovered Th1 and Th2 cells, the Th17 cells consist in the third group of T help cells. IL-23, a growth and stabilization factor was the first cytokine that was found to involve with the development of Th 17 cells. Later on, other cytokines including TGF-beta, IL-6, IL-21 were also found to contribute to the procedure. The transcription factors implicated in the procedure were identified as STAT3, RORgt, and RORa. IL-17, like interferon-gamma, is a potent mediator of delayed-type reaction. IL-17 induces the secretion of many other pro-inflammatory cytokines and chemokines such as IL-6, IL-8, GM-CSF, GCSF, TGF-beta, TNF-alpha, GRO-alpha, MCP-1, and stimulates the expression of NFkappaB, mitogen activated protein kinase, and prostaglandins from many cell types. By stimulating cytokine production and recruiting monocytes neutrophils to site of inflammation, the cytokine exerts its effect in response to tissue damage and invasion. Excessive expression of IL-17 was found to associate with autoimmune diseases and chronic inflammatory diseases such as multiple sclerosis, rheumatoid arthritis, psoriasis, inflammatory bowel diseases, tissue allograft rejection, allergic asthma and infectious diseases at the mucosal tissue. This IL-17A ELISA is a 3.5-hour solid phase immunoassay readily applicable to measure IL-17A levels in serum, plasma, cell culture supernatant, and other biological fluids in the range of 0 to 1000 pg/mL. It showed no cross reactivity with other cytokines tested. This IL-17A ELISA is expected to be effectively used for further investigations into the relationship between IL-17A and the various conditions mentioned.
Product Categories/Family for IL-6 sR elisa kit	ELISA Kits for Human Cytokines and Receptors

NCBI AND UNIPROT INFORMATION

NCBI GI #	28610147
NCBI GeneID	3572
NCBI Accession #	NP_002175.2
NCBI GenBank Nucleotide #	NM_002184.3
Molecular Weight	96,276 Da
NCBI Official Full Name	interleukin-6 receptor subunit beta isoform 1
NCBI Official Synonym Full Names	interleukin 6 signal transducer
NCBI Official Symbol	IL6ST

NCBI Official Synonym Symbols	CD130; GP130; CDW130; IL-6RB
NCBI Protein Information	interleukin-6 receptor subunit beta; CD130 antigen; IL-6 receptor subunit beta; IL-6R subunit beta; gp130 of the rheumatoid arthritis antigenic peptide-bearing soluble form; gp130, oncostatin M receptor; interleukin receptor beta chain; membrane glycoprotein 130; membrane glycoprotein gp130; oncostatin-M receptor subunit alpha
UniProt Protein Name	Interleukin-6 receptor subunit beta
UniProt Gene Name	IL6ST
UniProt Entry Name	IL6RB_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.

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Online datasheet: <https://stage.aaabiotech.com/il-6-sr-elisa-kits/interleukin-6-soluble-receptor/77850>