

Interleukin-2 ELISA Kit | IL-2 elisa kit

Interleukin-2 (IL-2)

CATALOG #
AAA77889

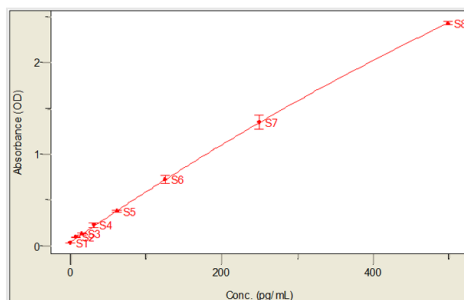
PRODUCT SYNONYMS

Interleukin-2; Interleukin-2 (IL-2); IL-2 elisa kit

PRODUCT SPECIFICATIONS

Sequence Length	153
Samples	Serum, Cell Culture Supernatant, and other biological fluids
Assay Type	Sandwich
Sensitivity	The minimum detectable dose of mouse IL-2 was determined by adding two standard deviations to the mean optical density value of 16 zero standard replicates and calculating the corresponding concentration from the standard curve. The minimum detectable dose of mouse IL-2 calculated from calibrate I diluted standard curve was <2.1pg/mL.
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by using 16 replicates in 1 assay.
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by using replicates on 8 different assays.
Intended Uses	This Mouse IL-2 ELISA kit is to be used for the in vitro quantitative determination of mouse interleukin 2 (IL-2) concentrations in serum, cell culture supernatant, and other biological fluids. This kit is intended for LABORATORY RESEARCH USE ONLY.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL-2 elisa kit	Principle of the assay: This mouse IL-2 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 for mouse IL-2. Standards or samples are then added to the appropriate microtiter plate wells and incubated. Mouse IL-2, 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 mouse IL-2 and other components in the samples. A biotin-conjugated antibody preparation specific for mouse IL-2 is added to each well and incubated. The biotin labelled antibody will attach to the wells by binding to mouse IL-2 present in the standards/samples. After plate washing, other proteins, components and unattached biotin labelled antibody are removed. Then, avidin-horseradish peroxidase (HRP) conjugate is added to each well. Avidin has a very high affinity for biotin, thus, it links the tracer (HRP) sturdily to the biotin conjugated antibody. The wells are thoroughly washed to remove all unbound avidin-HRP conjugate 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 the wells that contain mouse IL-2 will exhibit a change in colour. The extent of colour change is proportional to the quantity of mouse IL-2 present in the standards/samples. 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 mouse IL-2 in the samples, this kit contains two calibration diluents (Calibrator Diluent I for serum/plasma testing and Calibrator Diluent II for cell culture supernatant/ urine 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-2 concentration (pg/mL). The concentration of IL-2 in the samples is then determined by comparing the O.D. of the samples to the standard curve. Background: Mouse IL-2 is a 17kDa protein produced by activated CD4+ T helper cells immediately after foreign antigens bind with the T-cell receptor. IL-2 is an initiator of the acquired immunity and a major clone expansion stimulator of activated T cells. The cytokine stimulates the growth, proliferation and differentiation of naïve T-cells into "effector T-cells", promotes the survival of antigen specific "memory T-cell", and stimulates the maturation of "regulatory Tcells". The biological activity of IL-2 is mediated by receptor that is expressed primarily on the cell membrane of activated T-cells. IL-2 receptor is comprised of a specific alpha subunit with high affinity to IL-2, a beta subunit, and a common gamma subunit that is also involved with the biological functions of a number of other cytokines such as IL-4, IL-7, IL-9, IL-15 and IL-21. In addition to T cell clone expansion and haematopoietic effect, IL-2 also acts on activated B cells, monocytes, NK cells and LAK cells, and plays a role in tumor surveillance, antiinflammatory reaction and self antigen-tolerance. This ELISA kit provides a tool for studying IL-2 expression and regulation in animal model.
Product Categories/Family for IL-2 elisa kit	ELISA Kits for Mouse Cytokines and Receptors

NCBI AND UNIPROT INFORMATION

NCBI GI #	28178861
NCBI GeneID	3558
NCBI Accession #	NP_000577.2
NCBI GenBank Nucleotide #	NM_000586.3
Molecular Weight	17,628 Da
NCBI Official Full Name	interleukin-2
NCBI Official Synonym Full Names	interleukin 2
NCBI Official Symbol	IL2
NCBI Official Synonym Symbols	IL-2; TCGF; lymphokine
NCBI Protein Information	interleukin-2; T cell growth factor; aldesleukin; involved in regulation of T-cell clonal expansion
UniProt Protein Name	Interleukin-2
UniProt Gene Name	IL2
UniProt Entry Name	IL2_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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/il-2-elisa-kits/interleukin-2/77889>