

Rat interleukin 2 ELISA Kit | IL2 elisa kit

Rat Interleukin 2, IL-2 ELISA Kit

CATALOG #
AAA79523

REACTIVITY
Rat

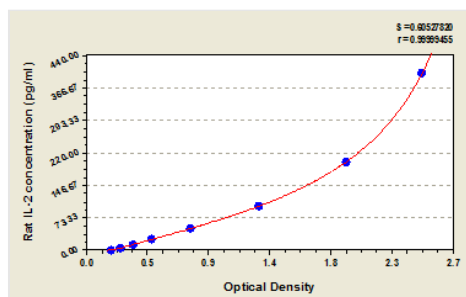
PRODUCT SYNONYMS

interleukin 2; Rat Interleukin 2; IL-2 ELISA Kit; IL-2 ELISA kit; IL-2; TCGF; lymphokine; T cell growth factor; aldesleukin; interleukin-2; involved in regulation of T-cell clonal expansion; IL2 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Rat
Specificity	This assay has high sensitivity and excellent specificity for detection of Rat IL2. No significant cross-reactivity or interference between Rat IL2 and analogues was observed.
Sequence Length	153
Samples	Serum, urine and tissue homogenates
Detection Range	6.25 pg/ml-400 pg/ml
Sensitivity	1.56 pg/ml
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Detection Wavelength	450 nm
Sample Volume	50-100ul
Protein Biological Process 1	Immunity
Protein Biological Process 3	Adaptive immunity
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL2 elisa kit	Introduction: Interleukin-2 (IL-2) is an interleukin, a type of cytokine immune system signaling molecule, that is instrumental in the body's natural response to microbial infection and in discriminating between foreign (non-self) and self. IL-2 mediates its effects by binding to IL-2 receptors, which are expressed by lymphocytes, the cells that are responsible for immunity. IL-2 signals through a receptor complex consisting of IL-2 specific IL-2 receptor alpha (CD25), IL-2 receptor beta (CD122) and a common gamma chain (gammac), which is shared by all members of this family of cytokines. Binding of IL-2 activates the Ras/MAPK, JAK/Stat and PI 3-kinase/Akt signaling modules. IL-2 is normally produced by the body during an immune response. When environmental substances (molecules or microbes) gain access to the body, these substances (termed antigens) are recognized as foreign by antigen receptors that are expressed on the surface of lymphocytes. Antigen binding to the T cell receptor (TCR) stimulates the secretion of IL-2, and the expression of IL-2 receptors IL-2R. The IL-2/IL-2R interaction then stimulates the growth, differentiation and survival of antigen-selected cytotoxic T cells via the activation of the expression of specific genes. As such, IL-2 is necessary for the development of T cell immunologic memory, one of the unique characteristics of the immune system, which depends upon the expansion of the number and function of antigen-selected T cell clones. IL-2 is also necessary during T cell development in the thymus for the maturation of a unique subset of T cells that are termed regulatory T cells (T-regs). After exiting from the thymus, T-Regs function to prevent other T cells from recognizing and reacting against "self antigens", which could result in "autoimmunity". T-Regs do so by preventing the responding cells from producing IL-2. Thus, IL-2 is required to discriminate between self and non-self, another one of the unique characteristics of the immune system. IL-2 has been found to be similar to IL-15 in terms of function. Both cytokines are able to facilitate production of immunoglobulins made by B cells and induce the differentiation and proliferation of natural killer cells. The primary differences between IL-2 and IL-15 are found in adaptive immune responses. For example, IL-2 participates in maintenance of T-Regs and reduces self-reactive T cells. On the other hand, IL-15 is necessary for maintaining highly specific T cell responses by supporting survival of CD8 memory T cells. The differences in function in these two cytokines stem from the signal transduction mechanisms and differing receptors. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to IL-2. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated polyclonal antibody preparation specific for IL-2 and Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. Then a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain IL-2, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The concentration of IL-2 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	253683515
NCBI GeneID	100302458
NCBI Accession #	NP_001156652.1
NCBI GenBank Nucleotide #	NM_001163180.1
UniProt Accession #	O77620; Q0MS71
Molecular Weight	17,256 Da
NCBI Official Full Name	interleukin-2 isoform 1
NCBI Official Symbol	IL2
NCBI Official Synonym Symbols	TCGF
NCBI Protein Information	interleukin-2; T-cell growth factor
UniProt Protein Name	Interleukin-2
UniProt Gene Name	IL2
UniProt Synonym Gene Names	IL-2; TCGF
UniProt Entry Name	IL2_RABIT

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://www.aaabiotech.com/il2-rat-elisa-kits/interleukin-2/79523>