

Mouse IL-10 ELISA Kit | IL-10 elisa kit

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CATALOG #
AAA281305

REACTIVITY
Mouse

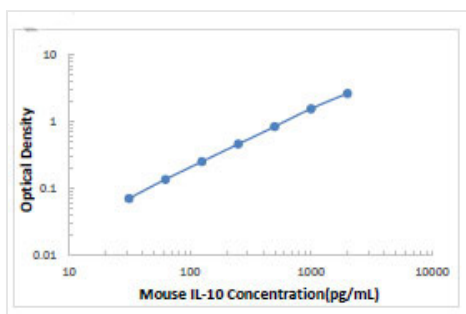
PRODUCT SYNONYMS

IL-10; Mouse IL-10 ELISA Kit; IL-10 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	This assay recognizes both recombinant and natural mouse IL-10. The factors listed below were prepared at 50ng/ml and assayed for cross-reactivity.
Sequence Length	168
Samples	Cell culture supernates, serum and plasma
Assay Type	Quantitative Sandwich
Sensitivity	< 15.6 pg/mL
Intra-assay Precision	Three samples of known concentration were tested 20 times on one plate to evaluate the Intra-plate precision.
Inter-assay Precision	Three samples of known concentration were tested 20 times separate assays to evaluate the Inter-plate precision. Assay were using two lots of components.
Preparation and Storage	Store at 4 degree C.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for IL-10 elisa kit	Principle of the Assay: This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for IL-10 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any IL-10 present is bound by the immobilized antibody. Following incubation unbound samples are removed during a wash step, and then a detection antibody specific for IL-10 is added to the wells and binds to the combination of capture antibody-IL-10 in sample. Following a wash to remove any unbound combination, and enzyme conjugate is added to the wells. Following incubation and wash steps, a substrate is added. A colored product TMB is formed in proportion to the amount of IL-10 present in the sample. The reaction is terminated by addition of acid and absorbance is measured. A standard curve is prepared from seven IL-10 standard dilutions and IL-10 sample concentration determined. Background/Introduction: Interleukin-10 (IL-10), also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 alpha-helical cytokine family that also includes IL-19, IL-20, IL-22, IL-24, and IL-26/AK155 (1-3). IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells (4, 5). Mature mouse IL-10 shares 85% amino acid sequence identity with rat IL-10 and 70-77% with bovine, canine, equine, feline, human, ovine, and porcine IL-10. It contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently-associated homodimer (4, 6, 7). IL-10 mediates its biological activities through a heteromeric receptor complex composed of the type II cytokine receptor subunits IL-10 Ralpha and IL-10 Rbeta. IL-10 Ralpha is a 110 kDa transmembrane glycoprotein that is expressed on lymphocytes, NK cells, macrophages, monocytes, astrocytes, intestinal epithelial cells, cytotrophoblasts, and activated hepatic stellate cells (8-13), while the 75 kDa transmembrane IL-10 Rbeta is widely expressed (14, 15). The IL-10 dimer binds to two IL 10 Ralpha chains, triggering recruitment of two IL-10 Rbeta chains (14, 15). IL-10 Rbeta does not bind IL-10 directly but is required for signal transduction. IL-10 Rbeta also associates with IL-20 Ralpha, IL-22 Ralpha1, or IL-28 Ralpha to form the receptor complexes for IL-22, IL-26, IL-28, and IL-29 (16-18). The involvement of IL-10 in immunoregulation includes both suppressive and stimulatory effects. It functions as an anti-inflammatory cytokine by inhibiting the expansion and activation of Th1 cells and Th17 cells (19-21) and by promoting the development of M2 macrophages (21). Its expression by immunosuppressive regulatory T cells (Treg) and regulatory B cells is important for Treg proliferation (19). Within a tumor microenvironment, however, IL-10 inhibits the expansion of Treg as well as myeloid-derived suppressor cells (22, 23). IL-10 induces the intratumoral accumulation and activation of CD8 + T cells (24, 25). IL-10 exerts protective effects including limiting tissue damage in arthritic inflammation (19) and promoting muscle regeneration after injury (21), but it also contributes to the persistence of viral infections (26). The levels of IL-10 are elevated in Sjogren's syndrome (saliva), primary CNS lymphoma (cerebrospinal fluid), and ovarian cancer (serum and ascites) (27-29). Its levels are decreased in the serum in patients with recurrent heart attacks or during preeclampsia and also in the seminal fluid of infertile men (30-32).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	21492460
NCBI GeneID	944684
NCBI Accession #	NP_659579.1
NCBI GenBank Nucleotide #	NC_004002.1
NCBI Official Full Name	IL-10
NCBI Official Symbol	SPPV_03
NCBI Protein Information	IL-10

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/mouse-elisa-kits/il-10/281305>