

Mouse IL-6 ELISA Kit | IL-6 elisa kit

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CATALOG #
AAA281297

REACTIVITY
Mouse

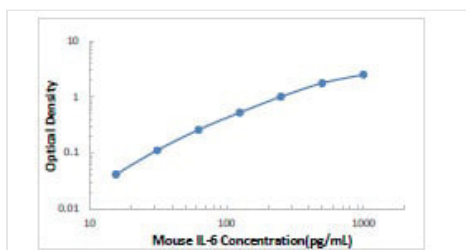
PRODUCT SYNONYMS

IL-6; Mouse IL-6 ELISA Kit; IL-6 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	This assay recognizes both recombinant and natural mouse IL-6. The factors listed below were prepared at 50ng/ml and assayed for cross-reactivity. No significant cross-reactivity was observed with the following: Recombinant mouse IL-1 IL-2 IL-3 IL-4 IL-5 IL-8 IL-10 IL-12 IFN TNF sTNF-RII
Sequence Length	212
Samples	Cell culture supernates, serum and plasma
Assay Type	Quantitative Sandwich
Sensitivity	< 7.2 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-6 elisa kit	Principle of the Assay: This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for IL-6 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any IL-6 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-6 is added to the wells and binds to the combination of capture antibody-IL-6 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-6 present in the sample. The reaction is terminated by addition of acid and absorbance is measured. A standard curve is prepared from seven IL-6 standard dilutions and IL-6 sample concentration determined. Background/Introduction: Interleukin 6 (IL-6) is a pleiotropic, alpha-helical, 22-28 kDa phosphorylated and variably glycosylated cytokine that plays important roles in the acute phase reaction, inflammation, hematopoiesis, bone metabolism, and cancer progression (1-5). Mature mouse IL-6 is 187 amino acids (aa) in length and shares 39% and 85% aa sequence identity with human and rat IL-6, respectively (6-8). Cells known to express IL-6 include CD8 + T cells, fibroblasts, synoviocytes, adipocytes, osteoblasts, megakaryocytes, endothelial cells (under the influence of endothelins), sympathetic neurons, cerebral cortex neurons, adrenal medulla chromaffin cells, retinal pigment cells, mast cells, keratinocytes, Langerhans cells, fetal and adult astrocytes, neutrophils, monocytes, eosinophils, colonic epithelial cells, B1 B cells and pancreatic islet beta cells (2, 9-31). IL-6 production is generally correlated with cell activation and is normally kept in control by glucocorticoids, catecholamines, and secondary sex steroids (2). IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL-6 Ralpha) and a signal transducing subunit (gp130). IL-6 binds to IL-6 Ralpha, triggering IL-6 Ralpha association with gp130 and gp130 dimerization (37). gp130 is also a component of the receptors for CLC, CNTF, CT-1, IL-11, IL-27, LIF, and OSM (38). Soluble forms of IL-6 Ralpha are generated by both alternative splicing and proteolytic cleavage (5). In a mechanism known as trans-signaling, complexes of soluble IL-6 and IL-6 Ralpha elicit responses from gp130- expressing cells that lack cell surface IL-6 Ralpha (5). Trans-signaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous, while that of IL-6 Ralpha is predominantly restricted to hepatocytes, monocytes, and resting lymphocytes (2, 5). Soluble splice forms of gp130 block trans-signaling from IL-6/IL-6 Ralpha but not from other cytokines that use gp130 as a co-receptor (5, 39). IL-6, along with TNF-alpha and IL-1, drives the acute inflammatory response. IL-6 is almost solely responsible for fever and the acute phase response in the liver, and it is important in the transition from acute inflammation to either acquired immunity or chronic inflammatory disease (1-5). When dysregulated, it contributes to chronic inflammation in conditions such as obesity, insulin resistance, inflammatory bowel disease, arthritis, and sepsis (2, 5). IL-6 modulates bone resorption and is a major effector of inflammatory joint destruction in rheumatoid arthritis through its promotion of Th17 cell development and activity (1). It contributes to atherosclerotic plaque development and destabilization as well as the development of inflammation-associated carcinogenesis (1, 2). IL-6 can also function as an anti-inflammatory molecule, as in skeletal muscle where it is secreted in response to exercise (2). In addition, it enhances hematopoietic stem cell proliferation and the differentiation of memory B cells and plasma cells (40).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	10834984
NCBI GeneID	3569
NCBI Accession #	NP_000591.1
NCBI GenBank Nucleotide #	NM_000600.5
UniProt Accession #	P05231; Q9UCU2; Q9UCU3; Q9UCU4
Molecular Weight	23,718 Da
NCBI Official Full Name	interleukin-6 isoform 1
NCBI Official Synonym Full Names	interleukin 6
NCBI Official Symbol	IL6
NCBI Official Synonym Symbols	CDF; HGF; HSF; BSF2; IL-6; BSF-2; IFNB2; IFN-beta-2
NCBI Protein Information	interleukin-6
UniProt Protein Name	Interleukin-6

UniProt Gene Name	IL6
UniProt Synonym Gene Names	IFNB2; IL-6; BSF-2; CDF; IFN-beta-2

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-6/281297>