

Human IL-18 ELISA Kit | IL-18 elisa kit

Human IL-18 ELISA KIT

CATALOG #
AAA309858

REACTIVITY
Human

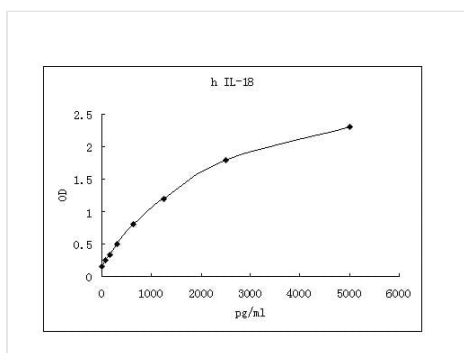
PRODUCT SYNONYMS

IL-18; Human IL-18 ELISA KIT; Human IL-18; IL-18 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant Human IL-18 Ligand
Assay Type	Solid Phase Sandwich ELISA
Samples	Cell culture supernatant, serum, plasma (EDTA, citrate, heparin)
Detection Range	78-5000pg/mL
Sensitivity	20pg/mL
Assay Time	3 hours
Sample Volume	20 uL
Detection Method	Colorimetric
Preparation and Storage	Store at 4 degree C

IMAGES



Standard Curve (Sample)

Representative standard curve for IL-18 ELISA. IL-18 was diluted in serial two-fold steps in Sample Diluent.

ADDITIONAL INFORMATION

Related Product Information for IL-18 elisa kit	Interleukin (IL) -18 is a newly discovered cytokine, structurally similar to IL-1, with profound effects on T-cell activation. Formerly called interferon (IFN) gamma inducing factor (IGIF), IL-18 is a novel cytokine that plays an important role in the T-cell-helper type 1 (Th1) response, primarily by its ability to induce IFN gamma production in T cells and natural killer (NK) cells. In terms of structure, IL-18 and IL-1 beta share primary amino acid sequences of the so-called "signature sequence" motif and are similarly folded as all beta pleated sheet molecules. Also similar to IL-1 beta, IL-18 is synthesized as a biologically inactive precursor molecule lacking a signal peptide which requires cleavage into an active, mature molecule by the intracellular cysteine protease called IL-1 beta-converting enzyme (ICE, caspase-1). Therefore inhibitors of ICE activity may limit the biologic activity of IL-18 and may be useful as Th1 immunosuppressive agents. The activity of the mature IL-18 is closely related to that of IL-1. IL-18 induces gene expression and synthesis of tumor necrosis factor (TNF), IL-1, Fas Ligand, and several chemokines. IL-18 induces the differentiation of Th1 or Th2 cells depending upon cytokine milieu and genetic background. The activity of IL-18 is via an IL-18 receptor (IL-18R) complex. This complex is made up of a binding chain termed IL-18R?, a member of the IL-1 receptor family previously identified as the IL-1 receptor - related protein (IL-1Rrp), and a signaling chain, also a member of the IL-1R family. The IL-18R complex recruits the IL-1R - activating kinase (IRAK) and TNF-R - associated factor -6 (TRAF-6) with subsequent activation of NF kappa B. Thus based on primary structure, three-dimensional structure, receptor family, signal transduction pathways and biological effects, IL-18 appears to be a new member of the IL-1 family. Similar to IL-1, IL-18 participates in both innate and acquired immunity. Constitutive IL-18 expression is detected from many different cells, including macrophages, keratinocytes, and osteoblasts. Human keratinocytes have been found to be the major producers of IL-18 in unprocessed form. An important role of IL-18 has been shown in clinical implications, in the role of IL-18 modulation in tumours, infections, and autoimmune and inflammatory diseases. Elevated serum levels of IL-18 have been shown in patients with acute graft-versus-host disease after bone marrow transplantation. Highly elevated IL-18 bioactivity with highly elevated serum IL-18 levels are measured in hematological malignancies as well as in sepsis. Increased concentrations of plasma IL-18 are found in patients with hepatic dysfunction after hepatectomy and in inflammatory liver diseases. Elevations of IL-18 levels accompany autoimmune disorders like systemic lupus erythematosus and rheumatoid arthritis. Significant levels of circulating IL-18 are found in HIV-1 infection, and other infections, in inflammatory CNS diseases, in Crohn's disease and in pregnancy during labour and complicated pregnancies. IL-18 is regarded as a novel player in tumour immunotherapy.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7960049
NCBI GeneID	397057
Molecular Weight	22,026 Da
NCBI Official Full Name	IL-18
NCBI Official Symbol	IL18
NCBI Official Synonym Symbols	IL-18
NCBI Protein Information	interleukin-18
UniProt Protein Name	Interleukin-18
UniProt Gene Name	IL18
UniProt Synonym Gene Names	IGIF; IL-18; IFN-gamma-inducing factor; IL-1 gamma

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.