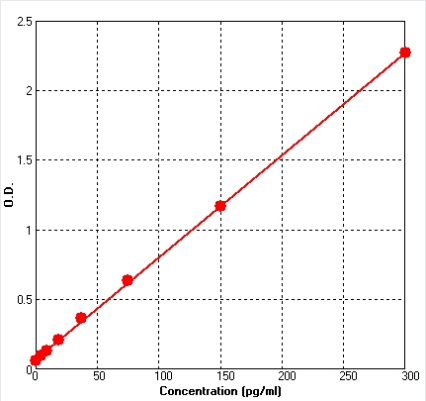
Il-1alpha ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	IL-1alpha, ELISA Kit
Full Product Name	IL-1alpha Mouse ELISA Kit
Product Gene Name	IL-1alpha elisa kit
Product Synonym Names	Mouse IL-1alpha
Species Reactivity	Mouse
Assay Type	Sandwich
Detection Range	4.7 pg/ml-300 pg/ml
Sensitivity	< 1pg/ml
Preparation and Storage	Store at 2-8 degree C for 4 months, or at -20 degree C for 8 months.
Molecular Weight	30,607 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (113531492..113542971, complement). Location: 2q14
OMIM	147760
3D Structure	ModBase 3D Structure for P01583
Applications Tested/Suitable for IL-1alpha elisa kit	Quantitative sELISA (EIA)
Application Notes for IL-1alpha elisa kit	For quantitative detection of IL-1? in mouse serum, body fluids, tissue lysates or cell culture supernates.
Related Product Information for IL-1alpha elisa kit	**Principle of the Assay:** This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-IL-1alpha polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-IL-1alpha polyclonal antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the IL-1alpha amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of IL-1alpha can be calculated. **Background:** Interleukin-1 alpha (IL-1alpha) is a protein of the interleukin-1 family that in humans is encoded by the IL1A gene which spans 10.2 kb and has 7 exons. It is 1 of 2 structurally distinct forms of IL1, the other being IL1B, this two proteins are synthesized by a variety of cell types, including activated macrophages, keratinocytes, stimulated B lymphocytes, and fibroblasts, and are potent mediators of inflammation and immunity. IL1A may play a role in the genesis of inflammation by augmenting the transcription of proinflammatory genes, a mechanism not affected by extracellular inhibitors. IL1A has been administered to patients during receiving autologous bone marrow transplantation.
Other Notes	Small volumes of IL-1alpha elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for IL-1alpha purchase	MBS355407 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the IL-1alpha, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing IL-1alpha. The ELISA analytical biochemical technique of the MBS355407 kit is based on IL-1alpha antibody-IL-1alpha antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect IL-1alpha antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, IL-1alpha. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of IL-1alpha elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL-1alpha. It may not necessarily be applicable to this product.

NCBI GI #	27894330
NCBI GeneID	3552
NCBI Accession #	NP_000566.3
UniProt Primary Accession #	P01583
UniProt Secondary Accession #	Q53QF9; Q7RU02
UniProt Related Accession #	P01583
GenBank Nucleotide #	NM_000575.3
NCBI Official Full Name	interleukin-1 alpha proprotein
NCBI Official Synonym Full Names	interleukin 1, alpha
NCBI Official Symbol	IL1A
NCBI Official Synonym Symbols	IL1; IL-1A; IL1F1; IL1-ALPHA
UniProt Protein Name	Interleukin-1 alpha
UniProt Synonym Protein Names	Hematopoietin-1
Protein Family	Gamma-secretase
UniProt Gene Name	IL1A
UniProt Synonym Gene Names	IL1F1; IL-1 alpha
UniProt Entry Name	IL1A_HUMAN
NCBI Protein Information	interleukin-1 alpha; IL-1 alpha; hematopoietin-1; preinterleukin 1 alpha; pro-interleukin-1-alpha

NCBI Summary for IL-1alpha	The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is a pleiotropic cytokine involved in various immune responses, inflammatory processes, and hematopoiesis. This cytokine is produced by monocytes and macrophages as a proprotein, which is proteolytically processed and released in response to cell injury, and thus induces apoptosis. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. It has been suggested that the polymorphism of these genes is associated with rheumatoid arthritis and Alzheimer's disease. [provided by RefSeq, Jul 2008]
UniProt Comments for IL-1alpha	Function: Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells. Subunit structure: Monomer. Subcellular location: Secreted. Note: The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins. Domain: The similarity among the IL-1 precursors suggests that the amino ends of these proteins serve some as yet undefined function. Sequence similarities: Belongs to the IL-1 family.
Research Articles on IL-1alpha	**1.** The 4-bp insertion/deletion (Indel) polymorphism (rs3783553) could influence expression of IL-1alpha in a miR-122 dependant manner.
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