

Product datasheet

IL1 alpha Human ELISA Kit ab46051

1 Image

Overview

Product name IL1 alpha Human ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
A	22	459.6pg/ml	13	2.8%
B	21	72.6pg/ml	3.6	4.3%

Inter-assay

Sample	n	Mean	SD	CV%
A	8	259.9pg/ml	15	5.8%
B	8	58.6pg/ml	4.3	7.3%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 31.2 pg/ml - 1000 pg/ml

Recovery 95.3 %

Sample specific recovery

Sample type	Average %	Range
Serum	95.3	31.25pg/ml - 1000pg/ml

Assay time 3h 45m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview

The Human IL1 alpha ELISA is to be used for the in-vitro quantitative determination of interleukin-1 alpha (IL1 alpha) in human serum, plasma, buffered solutions or cell culture

medium. The assay will recognize both natural and recombinant human IL1 alpha. This kit has been configured for research use only and is not to be used in diagnostic procedures.

Principal:

The IL1 alpha Kit is a solid phase sandwich Enzyme Linked-Immuno-Sorbent Assay (ELISA). A monoclonal antibody specific for IL1 alpha has been coated onto the wells of the microtiter strips provided. Samples, including standards of known IL1 alpha concentrations and unknowns are pipetted into these wells. During the first incubation, the IL1 alpha antigen is added to wells. After washing, a biotinylated monoclonal antibody specific for IL1 alpha is incubated. Then the enzyme (streptavidin-peroxydase) is added. After incubation and washing to remove all unbound enzyme, a substrate solution which acts on the bound enzyme is added to induce a coloured reaction product. The intensity of this coloured product is directly proportional to the concentration of IL1 alpha present in the samples.

Recognizes both natural and recombinant human IL1 alpha

Range: 31.2 pg/ml - 1000 pg/ml

Sensitivity <10 pg/ml

Notes

Safety Notes:

For research use only.

The human blood components included in this kit have been tested and found non reactive for HBsAg and anti-HIV. Nevertheless, no known method can offer complete assurance that human blood derivatives will not transmit hepatitis, AIDS or other infections. Therefore, handling of reagents, serum or plasma specimens should be in accordance with local safety procedures, e.g. CDC/NIH Health manual : " Biosafety in Microbiological and Biomedical Laboratories" 1984.

Avoid any skin contact with H₂SO₄ and TMB. In case of contact, wash thoroughly with water.

Do not eat, drink, smoke or apply cosmetics where kit reagents are used.

Do not pipette by mouth.

The stop solution in this kit contains 9.8% sulphuric acid.

Tested applications

Suitable for: ELISA

Platform

Microplate

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	
10X Standard Diluent Buffer	1 x 25ml
Biotinylated Antibody Diluent	1 x 13ml
HRP Diluent	1 x 23ml

Components	
Stop Reagent	2 x 11ml
TMB Substrate	1 x 24ml
Wash Buffer	2 x 10ml
Biotinylated anti-IL 1a	2 x 0.4ml
Streptavidin-HRP	4 x 5µl
IL-1a Microplate (12 x 8 well strips)	8 x unit
IL-1a Standard (Lyophilized)	4 x 1vial
IL1a Control	4 x 1vial

Relevance

IL1 alpha is a member of the interleukin 1 cytokine family. It is a pleiotropic cytokine involved in various immune responses, inflammatory processes, and hematopoiesis. IL1 alpha 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.

Cellular localization

Secreted

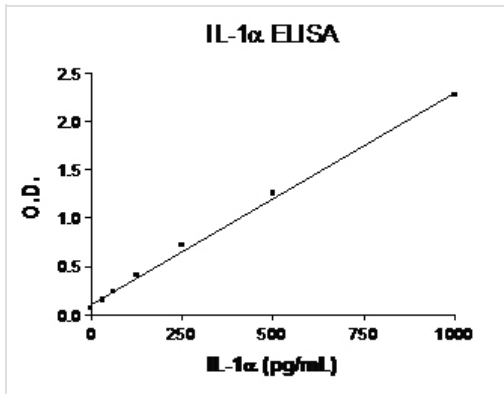
Applications

Our [Abpromise guarantee](#) covers the use of **ab46051** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent dilution.

Images



Typical IL1 alpha standard curve ranging from 1000 to 31.25 pg/mL.

ELISA - Human IL1 alpha ELISA Kit (ab46051)

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