

## Product datasheet

# Human Immunoglobulin E ELISA Kit (IgE) ab178659

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### Overview

**Product name** Human Immunoglobulin E ELISA Kit (IgE)

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	16			<=7.2%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	16			<=7.6%

**Sample type** Serum, Hep Plasma, Cit plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 0.27 IU/ml

**Range** 0 IU/ml - 200 IU/ml

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview** Abcam's Immunoglobulin E (IgE) Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of IgE in serum and plasma.

The essential reagents required for an immunoenzymometric assay include high affinity and specificity antibodies. In this procedure, the immobilization takes place during the assay at the surface of a microplate well through the interaction of streptavidin coated on the well and exogenously added biotinylated monoclonal anti-IgE antibody. Upon mixing monoclonal biotinylated antibody, and a serum containing the native antigen, reaction results between the native antigen and the antibody, forming an Antibody-Antigen complex. Simultaneously, the complex is deposited to the well through the high affinity reaction of streptavidin and biotinylated antibody. After a suitable incubation period, the antibody-antigen bound fraction is separated from unbound antigen by decantation or aspiration. Another antibody (directed at a different epitope) labelled with an enzyme is added. Another interaction occurs to form an Enzyme labelled Antibody-Antigen-Biotinylated-Antibody complex on the surface of the wells. Excess enzyme is

washed off via a wash step. A suitable substrate is added to produce colour measurable with the use of a microplate spectrophotometer. The enzyme activity on the well is directly proportional to the native free antigen concentration. By utilizing several different serum references of known antigen concentration, a dose response curve can be generated from which the antigen concentration of an unknown can be ascertained.

Get higher sensitivity in only 90 minutes with Human IgE ELISA Kit ([ab195216](#)) from our SimpleStep ELISA® range.

**Notes** IgE is an antibody isotype, found only in mammals. Although IgE is typically the least abundant isotype - blood serum IgE levels in a normal ("non-atopic") individual are ~150 ng/mL, compared to 10 mg/mL for the IgGs (the isotypes responsible for most of the classical adaptive immune response) - it is capable of triggering the most powerful immune reactions. Most of our knowledge of IgE has come from an allergy known as type 1 hypersensitivity.

**Platform** Microplate

### Properties

**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
50X Washing Solution	1 x 20ml
Cover Foil	1 unit
IgE Biotin Conjugate	1 x 13ml
IgE HRP Conjugate	1 x 13ml
IgE Standard 0 - 0 mU/mL	1 x 1ml
IgE Standard 1 - 5 mU/mL	1 x 1ml
IgE Standard 2 - 25 mU/mL	1 x 1ml
IgE Standard 3 - 50 mU/mL	1 x 1ml
IgE Standard 4 - 150 mU/mL	1 x 1ml
IgE Standard 5 - 400 mU/mL	1 x 1ml
Stop Solution	1 x 15ml
Streptavidin Coated Microplate (12 x 8 wells)	1 unit
Strip holder	1 unit
TMB Substrate Solution	1 x 15ml

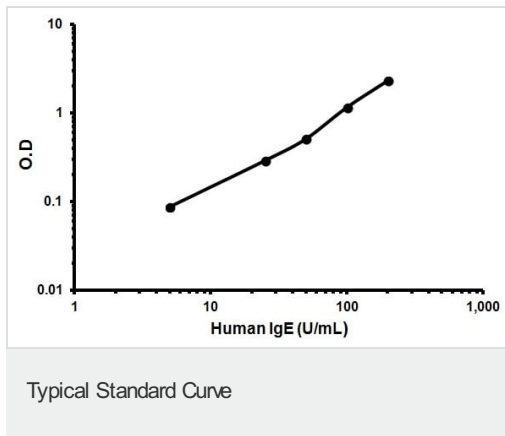
## Relevance

IgE is the class of antibodies produced in the lungs, skin, and mucous membranes. It may protect against parasite invasion, but it is a major factor in allergic reactions. The antigen-specific IgE interacts with mast cells and eosinophils, triggers the release of histamine, leukotrienes and other substances that lead to the itching, sneezing and congestion of allergies - and the life threatening respiratory distress of asthma and anaphylactic shock.

## Cellular localization

Secreted

## Images



Representative Standard Curve using ab178659.

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