# abcam

### Product datasheet

## Human IgA ELISA Kit ab137980

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#### Overview

Product name Human IgA ELISA Kit

**Detection method** Colorimetric

Precision

Sample	n	Mean	SD	CV%
Overall				5%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				9.4%

Sample type Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 0.35 ng/ml

**Range** 1.56 ng/ml - 100 ng/ml

Recovery 97 %
Assay time 4h 0m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Human IgA in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the

quantitative measurement of IgA in plasma, serum, urine, saliva, milk, cerebrospinal fluid and cell

culture supernatants.

An IgA specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently an IgA specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of IgA captured in plate.

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Get higher sensitivity in only 90 minutes with Human IgA ELISA Kit ( $\underline{ab196263}$ ) from our SimpleStep ELISA  $^{\circledR}$  range.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

**Platform** 

Microplate

#### **Properties**

#### Storage instructions

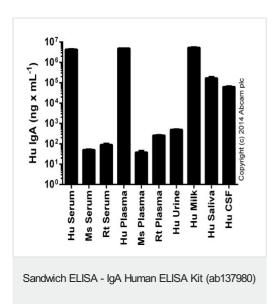
Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human IgA Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
lgA Microplate (12 x 8 well strips)	1 unit
lgA Standard (Lyophilized)	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

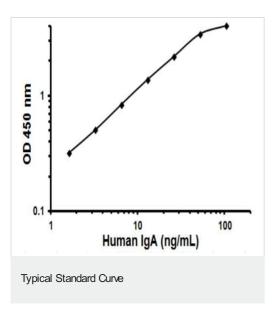
#### Relevance

Human IgA (immunoglobulin A) is a glycosylated protein of 160 kDa and is produced as a monomer or as a J chain linked dimer. Monomeric IgA constitutes 5-15 % of the serum immunoglobulins whereas dimeric IgA is localized to mucosa surfaces such as saliva, gastrointestinal secretion, bronchial fluids and milk. Mucosal IgA plays a major role in host defence by neutralising infectious agents at mucosal surfaces. The production is usually local and antigen specific IgA producing B cells can be found in regions under the lamina propria where they mature into dimeric IgA producing plasma cells. IgA deficiency is the most common immunodeficiency that may affect both serum and mucosal produced IgA. OR: The secretory component is a component of immunoglobulin A (IgA) which consists of a portion of the polymeric immunoglobulin receptor. Polymeric IgA binds to the polymeric immunoglobulin receptor on the basolateral surface of epithelial cells and is taken up into the cell via transcytosis. The receptor-IgA complex passes through the cellular compartments before being secreted on the luminal surface of the epithelial cells, still attached to the receptor. Proteolysis of the receptor occurs and the dimeric IgA molecule, along with the secretory component, are free to diffuse throughout the lumen.

#### **Images**



lgA measured in biological fluids, background signal subtracted (duplicates +/- SD).



Representative Standard Curve using ab137980

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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