abcam

## ab108728

# Human Anti-Dengue virus IgG ELISA Kit

Human Anti-Dengue virus IgG ELISA Kit is an indirect ELISA for the qualitative detection of IgG class antibodies against Dengue virus in human plasma and serum samples.

- Colorimetric readout - 450 nm - Works on any standard plate reader
- Easy results interpretation
- Cut-off, positive and negative controls included

## Key facts

| | |
|---|---|
| **Detection method** | Colorimetric |
| **Sample types** | Citrate plasma, Heparin Plasma, Serum |
| **Assay type** | Indirect |
| **Reactive species** | Human |
| **Assay Platform** | Microplate |

## What's included?

### 1 x 96 Tests

Components

Dengue virus (IgG) Coated Microplate (12 x 8 wells)

1 x 1 Unit

Cover foil

1 x 1 Unit

20X Washing Solution

1 x 50 mL

Stop Solution

1 x 15 mL

TMB Substrate Solution

1 x 15 mL

IgG Sample Diluent

1 x 100 mL

Strip holder

1 x 1 Unit

Dengue virus anti-IgG HRP Conjugate

1 x 20 mL

Dengue virus IgG Cut-off Control

1 x 3 mL

Dengue virus IgG Positive Control

1 x 2 mL

Dengue virus IgG Negative Control

1 x 2 mL

## Precision

### Intra assay

| Sample | n | C.V. |
|---|---|---|
| Serum | 8 | 4.34 |

### Inter assay

| Sample | n | C.V. |
|---|---|---|
| Serum | 8 | 6.76 |

## Storage

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |

| | |
|---|---|
| **Storage information** | +4°C |

## Notes

Human Anti-Dengue virus IgG ELISA Kit is an indirect ELISA for the qualitative detection of IgG class antibodies against Dengue virus in human plasma and serum samples.

**How the assay works:**

A 96-well plate has been precoated with Dengue virus antigens to bind cognate antibodies. Controls or test samples are added to the wells and incubated. Following washing, a horseradish peroxidase (HRP) labelled anti-Human IgG conjugate is added to the wells, which binds to the immobilized Dengue virus-specific antibodies. TMB is then catalyzed by the HRP to produce a blue color product that changes to yellow after adding an acidic stop solution. The density of yellow coloration is directly proportional to the amount of Dengue virus IgG sample captured in plate.

**Assay Specificity**

Our ELISA kits are rigorously validated to ensure the highest level of consistency and reproducibility. Please check the protocol booklet for more details

**Human Anti-Dengue virus IgG ELISA Kit ab108728 protocol summary**

1. Add standard or sample to appropriate wells. Incubate at 37°C
2. Wash each well and add prepared labeled HRP-Conjugate. Incubate at room temperature
3. After washing, add TMB substrate solution to each well. Incubate at room temperature
4. Add Stop Solution to each well. Read immediately.

**REACH authorisation**
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It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

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|---|---|
| **Activity summary** | Dengue Virus IgG also known as anti-dengue IgG is an immunoglobulin G antibody subtype that targets the dengue virus a member of the Flaviviridae family. It has a molecular mass of approximately 150 kDa and expresses significantly in individuals who have been infected with the dengue virus. This antibody plays an essential role in the body's immune response to dengue infection. Dengue Virus IgG is an important marker in serological assays including the ELISA test for dengue which helps detect past dengue infections. ELISA kit development often includes these specific antibodies to ensure high sensitivity and specificity. |

| | |
|---|---|
| **Biological function summary** | Dengue-specific IgG antibodies contribute to the immune system's ability to recognize and neutralize the dengue virus. These antibodies form complexes with viral antigens which help facilitate the clearance of the virus from the bloodstream. The presence and concentration of dengue IgG in serum indicate an ongoing or past infection. IgG antibodies play a role in secondary immune responses providing long-term immunity and protection against subsequent dengue virus exposures to some extent. The immune system relies on the production of these antibodies to maintain a state of readiness against the dengue virus. |
| **Pathways** | Dengue-specific IgG antibodies participate in various immune pathways particularly linking to the humoral immunity and Fc-gamma receptor-mediated pathways. These pathways are important in opsonization a process where antibodies bind to a pathogen to mark it for destruction by phagocytes. Additionally interactions with other proteins such as complement components and immunoglobulin receptors highlight the complex nature of IgG's involvement in protective immune responses. These connections emphasize the role of antibodies in coordinating and executing an effective immune response against dengue virus infection. |
| **Associated diseases and disorders** | Dengue-specific IgG antibodies are significantly involved in the diagnosis and understanding of dengue fever and dengue hemorrhagic fever. Dengue fever is a mosquito-borne viral disease that can range from mild to severe causing symptoms such as high fever rash and muscle pain. In patients with a history of previous dengue infection the presence of dengue IgG can lead to an enhanced immune response sometimes resulting in more severe forms of the disease such as dengue hemorrhagic fever due to a phenomenon called antibody-dependent enhancement (ADE). This links the dengue IgG with viral proteins such as the non-structural protein 1 (NS1) which plays a role in the severity and progression of these diseases. |

## Product promise

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Terms & Conditions.

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