



Product datasheet

anti-Zika virus IgM ELISA kit (μ-capture) ab213327

10 References

Overview

Product name anti-Zika virus IgM ELISA kit (μ-capture)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
1	24			= 2.7%
2	24			= 1.65%
3	24			= 1.92%

Inter-assay

Sample	n	Mean	SD	CV%
1	12			= 8.02%
2	12			= 5.59%
3	12			= 9.17%

Sample type Serum, Hep Plasma, Cit plasma

Assay type Sandwich (qualitative)

Sensitivity 100 %

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Zika virus IgM ELISA (Enzyme-Linked Immunosorbent Assay) kit detects IgM antibodies specific to Zika virus in human serum and plasma. ELISA protocols are available in Spanish and English.

Microplates are coated with anti-human IgM-class antibodies to bind the corresponding antibodies of the sample. After washing the wells to remove all unbound sample material, horseradish peroxidase (HRP) labelled Zika virus antigen is added. This antigen-conjugate binds to the captured specific IgM antibodies. In a second washing step unbound conjugate is removed. The immune complex formed by the bound conjugate is visualized by adding

Tetramethylbenzidine (TMB) substrate which gives a blue reaction product.

The intensity of this product is proportional to the amount of specific IgM antibodies in the specimen. Sulphuric acid is added to stop the reaction. This produces a yellow endpoint colour.

Absorbance at 450/620 nm is read using an ELISA microwell plate reader.

**Notes** Zika virus (ZIKV) is a single-stranded RNA virus of the Flaviviridae family (genus Flavivirus). It was first isolated in 1947 from a sentinel rhesus monkey during a yellow fever study in the Zika forest of Uganda.

**Platform** Pre-coated microplate (12 x 8 well strips)

## Properties

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

Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 50ml
Cover foil	1 unit
IgM Sample Diluent	1 x 100ml
Stop Solution	1 x 15ml
TMB Substrate Solution	1 x 15ml
Zika Virus Conjugate	1 x 15ml
Zika Virus IgM Cut-off Control	1 x 3ml
Zika Virus IgM Microplate	1 x 96 tests
Zika Virus IgM Negative Control	1 x 2ml
Zika Virus IgM Positive Control	1 x 2ml

**Relevance** IgM normally constitutes about 10% of serum immunoglobulins. IgM antibody is prominent in early immune responses to most antigens and predominates in certain antibody responses such as 'natural' blood group antibodies. IgM (with IgD) is the major immunoglobulin expressed on the surface of B cells. The gene for the mu constant region contains four domains separated by short intervening sequences. Class specific anti immunoglobulin antibodies are useful for: The characterization of malignant B cell proliferations. All but acute lymphocytic leukemias share either surface or intra cytoplasmic Ig with an isotypic restriction, which suggest the monoclonal nature of

the cell population. Most of the chronic lymphocytic leukemias, non Hodgkin lymphomas and Burkitt's lymphoma bear surface IgM, whereas plasmocytes from Waldenström's disease bear intracytoplasmic IgM. The other isotypes are less frequently found. On the other hand multiple myelomas are usually of the IgG or IgA type. Characterization of plasma cells in inflammatory conditions: Plasma cell typing can be of use for the classification of intestinal inflammatory conditions such as inflammatory bowel disease and allergic conditions. In the latter a specific increase in the number of IgE plasma cells can be demonstrated.

#### Cellular localization

Isoform 1: Secreted. During differentiation, B lymphocytes switch from expression of membrane bound IgM to secretion of IgM. Isoform 2: Cell membrane; Single pass type I membrane protein.

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