

## Human Anti-Dengue Virus IgM ELISA kits, 96 tests# 540-110-DHM

### Example of typical results:

Calibrator mean OD = 0.8  
 Calibrator Factor (CF) = 0.5  
 Cut-off Value = 0.8 x 0.5 = 0.400  
 Positive control O.D. = 1.2  
 Ab Index = 1.2 / 0.4 = 3  
 Patient sample O.D. = 1.6

### Interpretation of Results

Antibody Index is calculated by dividing the mean values of each sample by cut-off value.  
 <0.9 No detectable IgM antibody to Dengue virus.  
 0.9-1.1 Borderline positive. Follow-up testing is recommended if clinically indicated.  
 >1.1 Detectable IgM antibody to Dengue Virus.

### ELISA Kit Features

- Dengue virus antigens, pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 6-12 months.
- Human serum negative, positive controls, and a calibrator
- Sample size 100 ul (serum or plasma diluted ~1:20 or more).
- 50 minutes, 3 incubation steps (20-+20+10) at room temp
- Contains all necessary reagents. Shelf life ~12 months.

**This kit is for detecting human IgM antibody to Dengue virus. This kit does not detect IgG isotype.**

For in vitro research use only.

### Assay Procedure:

Allow all reagents to reach room temperature. Arrange and label required number of strips. Please consult the detailed manual provided with the kit for "FINAL UPDATED PROTOCOL".

**Step 1.** Pipet **100 ul** controls, calibrators, pre-diluted samples (about 1:20) into each well. Mix gently for 5 seconds and Incubate for 20 min at room temp;

**Step 2.** Aspirate and wash 3 times; Add **100 ul** of enzyme conjugate to all wells. Mix gently for 5 seconds and **incubate for 20 min at room temp.**

**Step 3.** Aspirate and wash 3 times; Add **100 ul** TMB Substrate Solution. Mix gently for 5 seconds and **incubate 10 minutes** at room temp (blue color develops in positive wells).;

**Step 4** Add **100ul** Stop Solution (blue color turns yellow). Read at 450nm immediately.

### General Information

Dengue fever, also known as break bone fever, is an infectious tropical disease caused by the dengue virus. Symptoms include fever, headache, muscle and joint pains, and a characteristic skin rash that is similar to measles. In a small proportion of cases the disease develops into the life-threatening dengue hemorrhagic fever, resulting in bleeding, low levels of blood platelets and blood plasma leakage, or into dengue shock syndrome, where dangerously low blood pressure occurs. Dengue is transmitted by several species of mosquito within the genus *Aedes*, principally *A. aegypti*. The virus has four different types 1-4; infection with one type usually gives lifelong immunity to that type, but only short-term immunity to the others. Subsequent infection with a different type increases the risk of severe complications. As there is no vaccine, prevention is sought by reducing the habitat and the number of mosquitoes and limiting exposure to bites.

The disease is prevalent in Third World tropical regions and spreading to sub-tropical developed countries - including the United States. WHO estimates that 50-80 million cases of dengue fever occur worldwide each year, including a potentially deadly form of the disease called dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). Primary infection with dengue virus results in a self-limiting disease characterized by mild to high fever lasting 3 to 7 days, severe headache with pain behind the eyes, muscle and joint pain, rash and vomiting. Secondary infection is the more common form of the disease in many parts of Southeast Asia and South America. This form of the disease is more serious and can result in DHF and DSS. The major clinical symptoms can include high fever, hemorrhagic events, and circulatory failure, and the fatality rate can be as high as 40%. Early diagnosis of DSS is particularly important, as patients may die within 12 to 24 h if appropriate treatment is not administered. Primary dengue virus infection is characterized by elevations in specific IgM antibody levels 3 to 5 days after the onset of symptoms; this generally persists for 30 to 60 days. IgG levels also become elevated after 10 to 14 days and remain detectable for life. During secondary infection, IgM levels generally rise more slowly and reach lower levels than in primary infection, while IgG levels rise rapidly from 1 to 2 days after the onset of symptoms.

Dengue virus IgG or IgM ELISA kits are intended for the detection of IgG or IgM antibody to Dengue virus in human serum or plasma. Additional ELISA kits to detect the Dengue virus antibody in mouse are also available for research.

### Related ELISA kits

540-100-DHG	Human Anti-Dengue Virus IgG ELISA kits	540-110-DHM	Human Anti-Dengue Virus IgM ELISA kits, 96 tests
540-120-DHG	Mouse Anti-Dengue Virus IgG ELISA kits	540-130-DHM	Mouse Anti-Dengue Virus IgM ELISA kits, 96 tests

Recombinant Dengue virus types 1-4 antigens and antibodies are also available.

[http://www.4adi.com/commerce/catalog/spcategory.jsp?category\\_id=2742](http://www.4adi.com/commerce/catalog/spcategory.jsp?category_id=2742)

540-110-DHM-flr

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