

Instructions for Use

Version: 1.0.2
Revision date: 9-Aug-24

Dengue Virus IgG/IgM Rapid Test Kit

Catalog No.: abx090707

Size: 100 tests / 400 tests / 2000 tests / 10000 tests

Storage: Store all reagents at 2 – 30°C. Keep dry. Do not freeze or expose to temperatures above 30°C.

Application: For qualitative detection in Human serum, plasma, or whole blood.

Introduction and assay principle

Abbexa's Dengue Virus IgG/IgM Rapid Test Kit is a lateral flow immunoassay which can simultaneously detect and differentiate antibodies against Dengue Virus (DEN1, DEN2, DEN3, DEN4). The test strip in the cassette contains 1) a DENV envelope protein conjugated with colloidal gold, and 2) a control antibody conjugated with colloidal gold. The nitrocellulose membrane strip has three lines on it: the C line, M line and the G line. The G line is pre-coated with antibodies for the detection of anti-IgG antibodies. The M line is pre-coated with antibodies for the detection of anti-Dengue IgM antibodies. The C line is pre-coated with a control anti-Human antibody. A sample is dispensed into the sample well of the device. If anti-Dengue IgG antibody is present in the sample, then it will bind to the Dengue antigen-gold conjugate. It will then move along the test strip, and the complex will be captured by the pre-coated anti-IgG antibodies on the G line. The colloidal gold will cause the formation of a colored G line. If anti-Dengue IgM antibody is present in the test sample, then it will bind to the Dengue antigen-gold conjugate. It will then move along the test strip, and the complex will be captured by the pre-coated anti-IgM antibodies on the M line. The colloidal gold will cause a colored line to appear. The control antibody-gold conjugate will also move along the test strip, and it will be captured by the pre-coated antibodies on the C line. If a colored C line does not appear after the test is run, the results are invalid and another test must be used for the sample.

Kit Components

- Test cassettes
- Sample Diluent

Material Required But Not Provided

- Timer
- High-precision pipette and sterile pipette tips
- Paper towel (or similar)
- Soap and clean water
- Lancet

Sample preparation

- **Serum:** Samples should be collected into a serum separator tube. Coagulate the serum by leaving the tube undisturbed at room temperature for 30 mins. Centrifuge at approximately 1000 × g for 15 mins between 2-8°C. If a precipitate appears, centrifuge again. Take the supernatant and assay immediately, or aliquot the supernatant and store between 2-8°C for up to 5 days, or at or below -20°C for long-term storage.
- **Plasma:** Collect plasma using an anticoagulant tube. Centrifuge for 15 mins at 1000 × g between 2-8°C, within 30 mins of collection. If precipitate appears, centrifuge again. Take the supernatant and assay immediately, or aliquot the supernatant and store between 2-8°C for up to 5 days, or at or below -20°C for long-term storage.
- **Whole blood (venipuncture):** Collect whole blood using an anticoagulant tube, then assay immediately or store between 2-8°C for up to 24 hours. Do not freeze whole blood samples.
- **Whole blood (fingerstick):** Wash hands thoroughly with soap and water. Ensure fingertips are clean and dry. Using a lancet, press against the fingertip to puncture. Use a clean paper towel or similar material to wipe off the first drop of blood. Gently massage the finger from knuckle to fingertip to allow a second drop of blood to form. Collect blood and assay immediately.
- **Notes:** Fresh samples are recommended. Samples from immunosuppressed donors may not be suitable for use with this kit. EDTA, sodium heparin, sodium citrate or potassium oxalate can be used as the anticoagulant. Avoid repeated freeze/thaw cycles, bacterial pollution, visible particles; and avoid cloudy, hemolytic, or viscous samples. Do not use heat inactivated samples as heat inactivation will degrade antibodies. Bring samples to room temperature before carrying out the assay.

Instructions for Use

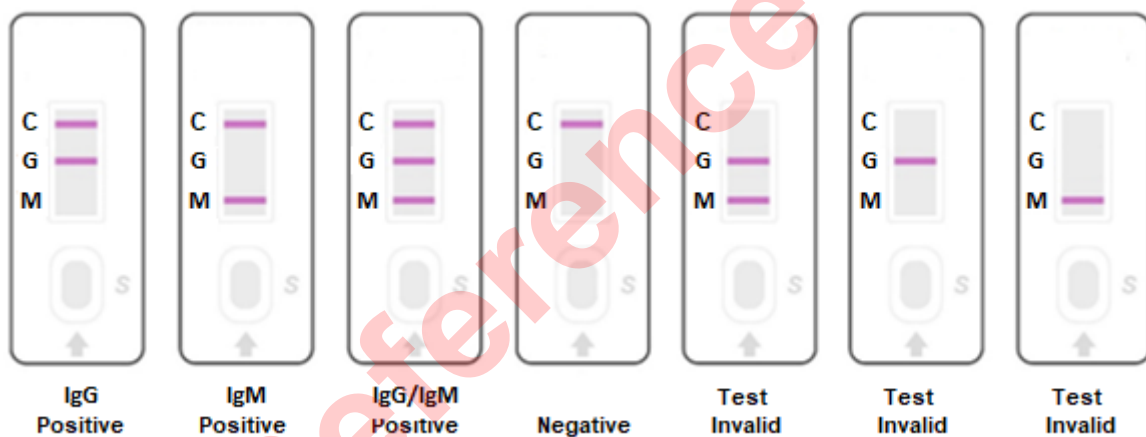
Version: 1.0.2
Revision date: 9-Aug-24

Assay procedure

1. Bring the sample and test components to room temperature if refrigerated. Mix the sample fully prior to the assay.
2. Take a test cassette and lay it flat on a clean table. Using a pipette, add 5 µl of sample to the sample well on the test cassette.
3. Add 3 drops (approximately 90-120 µl) of Sample Diluent to the sample well on the test cassette.
4. Start the timer. Leave at room temperature for 20-25 mins, then analyze the result.

Results analysis

- **IgG and IgM Positive result:** A colored line is observed in the control (C) section and both test sections (IgG and IgM).
- **IgG Positive result, IgM Negative result:** A colored line is observed in the control (C) section and the first test section (IgG) but not the second test section (IgM).
- **IgM Positive result, IgG Negative result:** A colored line is observed in the control (C) section and the second test section (IgM) but not the first test section (IgG).
- **IgG and IgM Negative result:** A colored line is observed in the control (C) section but not in the test sections (IgG and IgM).
- **Invalid result:** No colored line is observed in the control (C) section.



Notes

1. The test cassettes and samples should be brought to room temperature before use.
2. After opening the aluminum foil, use the test cassette as soon as possible.
3. Do not mix or re-use disposable pipettes or pipette tips to avoid cross-contamination.
4. Avoid touching the cassette membrane through the sample well or test result window.
5. This kit is for qualitative detection of Human Dengue Virus IgG/IgM (DENV IgG/IgM) antibodies in Human serum, plasma, and whole blood samples. For other sample types, a preliminary experiment is recommended to determine compatibility with this kit.
6. This kit is for research use only and the results are for reference only. It is recommended to use this kit in conjunction with another detection method.
7. All waste should be disposed appropriately. Please note that you may need to follow special waste disposal procedures for infectious samples. Please check local disposal regulations.

Technical Support

For troubleshooting and technical assistance, please contact us at support@abbexa.com.