

Instructions for Use

Version: 1.0.1
Revision date: 12-Jul-24

Procalcitonin (PCT) Rapid Test Kit

Catalogue No.: abx472035

Size: 50 tests

Storage: Store all reagents at 2-30 °C. Keep dry. Do not freeze.

Application: For semi-quantitative detection in human serum, plasma, or whole blood.

Assay principle

Abbexa's Procalcitonin (PCT) Rapid Test Kit is a lateral flow immunoassay for the semi-quantitative determination of PCT. The sample pad inside the cassette contains coloured nanoparticles conjugated to PCT antibodies. The control region on the upper end of the cassette confirms if the test has been successful. Samples containing a concentration of PCT above the threshold (0.5 mg/L, 2.0 mg/L, 10.0 mg/L) will lead to a colour change in the respective test strip.

Kit Components (50 tests)

- Test cassettes with pipettes: 50
- Buffer: 2 x 4.0 ml

Materials Required But Not Provided

- Timer
- Centrifuge
- Specimen collection container
- Paper towel (or similar)

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 min. 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 3 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 3 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 2 days. 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. Immediately collect 20 µl (approximately one drop) of blood and assay immediately.
- **Notes:** Fresh samples are recommended. K2-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, haemolytic, 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.

Assay procedure

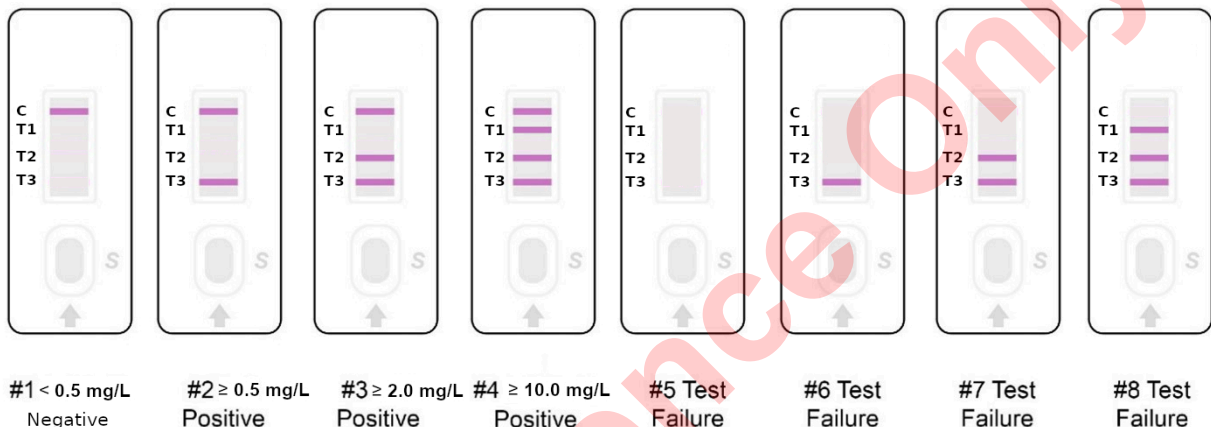
1. Take a test cassette and lay it flat on a clean table.
2. Add 2 drops of sample to the sample well on the test cassette.
3. Add 1 drop of buffer to the sample well on the test cassette. Start the timer.
4. Leave at room temperature for 10 minutes, then immediately analyse the result. Do not analyse the result after 20 minutes.

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Results analysis

- **PCT concentration ≥ 10.0 mg/ml:** A coloured line is observed in the control (C) section and all three test sections (T1, T2, T3).
- **PCT concentration ≥ 2.0 mg/ml:** A coloured line is observed in the control (C) section and the last two test sections (T2, T3) but not the first test section (T1).
- **PCT concentration ≥ 0.5 mg/ml:** A coloured line is observed in the control (C) section and the third test section (T3) but not the first test sections (T1, T2).
- **Negative result, PCT concentration < 0.5 mg/ml:** A coloured line is observed in the control (C) section but not in the test sections (T1, T2, T3)
- **Invalid result:** No coloured line is observed in the control (C) section.



Notes

1. The test cassettes, buffers, and samples should be brought to room temperature before use.
2. After opening the sealed pouch, 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. False positive results can be caused by several factors, such as: cross-reaction of similar components in blood; cross-contamination of samples during transportation and treatment; contamination of test components during the assay.
6. False negative results can be caused by several factors, such as: components in the sample blocking the antigen epitope, preventing the antigen from binding to the antibody; sample degradation; analyte concentration is lower than the detection limit of the kit.
7. This kit is for qualitative detection of Procalcitonin (PCT) antibodies in human serum, plasma, and whole blood samples. For other sample types, a preliminary experiment is recommended to determine compatibility with this kit.
8. 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.
9. 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.