

Activated clotting time

- using MAX-ACT tubes

Please note this test does not measure the Prothrombin Time (PT), which is the recommended screening test for rat bait poisoning, nor has this test been validated for use in screening for rat bait poisoning. Awanui Veterinary accepts no responsibility for the performance of this test and any possible outcomes. PT testing is available at your local Awanui Veterinary laboratory.

Intended use

The Helena Laboratories MAX-ACT® Activated Clotting Time Test System is intended for use in the performance of a whole blood coagulation assay to monitor the use of anticoagulants such as heparin. ACT is commonly used (only) in veterinary medicine as an assessment of the intrinsic and common coagulation pathways. This test may detect only severe deficiencies of the intrinsic and common pathway factors.

Storage and stability

Actalyke MAX-ACT test tubes can be stored at room temperature (15-30°C). They must not be used past the expiration date that appears on the barcode label affixed to each test tube. These MAX-ACT tubes are NOT STERILE, so do not collect blood directly into the tube from the patient.

Step-by-step method

Note: These tubes are designed for use with an automated analyser.

1. Open the flip top of the selected Actalyke test tube.
2. Dispense 0.5mL of blood into the appropriate tube or fill to the line indicated on the tube.
3. Perform the next steps quickly and in order:
4. Press the START button on a stopwatch at the same time that blood is added to the tube.
5. Close the flip-top. Shake gently from side-side.
6. Place the tube at 37°C, rotate and gently mix until a clot forms.
7. Stop the stopwatch as soon as a clot is detected (magnet will lodge in clot).

Limitations

- If a temperature of 37°C cannot be maintained while the sample is clotting, clotting times may be extended.
- The ACT results may be affected by haemodilution, thrombocytopenia, hypothermia, pharmacologic compounds and various coagulopathies. Test results should be interpreted with respect to the patient's condition and the clinical circumstances. Those results that do not agree with expected values should be repeated and further evaluated by other diagnostic methods, if indicated.
- MAX-ACT tubes should be validated and checked with an Actalyke Whole Blood QC kit when used.

Reference ranges

- Normal dogs MAX-ACT <80 seconds
- Normal cats MAX-ACT <85 seconds

References:

- > Detailed package insert – https://www.helena.com/Procedures/Pro187Rev10_web.pdf
- > AM See et al, Activated coagulation times in normal cats and dogs using MAX-ACT™ tubes. *Aust. Vet. J.* 87:292-295, 2009.