RESEARCH USE ONLY

NAPTT

Non-Activated Partial Thromboplastin Time Reagent. X9101

Description: Liquid "ready for use" NAPTT reagent containing synthetic phospholipid blend. Glass vials containing 5ml. Store at 2-8degC for a shelf life of 2 years.

Product use: This reagent is intended for use in the European Pharmacopeia (EP) method for the detection of activated coagulation factors in therapeutic products (1). The NAPTT reagent can also be used in the NAPTT test for detecting contact activation and hypercoagulability (2).

EP Method: Prepare 1:10 and 1:100 dilutions of the preparation to be tested in EP buffer.
The following clotting tests should be carried out either by tilt-tube technique in polystyrene tubes or in any clot-testing instrument using plastic or non-contact activating surfaces.

Mix 0.1ml of the NAPTT reagent with 0.1ml of the reconstituted PNP and prewarm for 1 minute at 37C. Add 0.1ml of the prewarmed sample, then immediately 0.1ml M/40 calcium chloride and time to a clotting endpoint. Proportionally smaller volumes can be used.

For results to be considered valid, a control test using only EP diluent as blank sample must be between 200-350sec. Duplicate tests advised!

Hypercoagulability: For detecting activated clotting factors in patients' plasmas, simply use the NAPTT reagent (2) in place of an APTT reagent. Thus, mix 0.1ml of test plasma with 0.1ml NAPTT reagent at 37C, then add 0.1ml prewarmed M/40 calcium chloride and time to a clotting endpoint at 37C. (No preincubation is required).

A normal NAPTT result is usually 200-300sec but is shortened by contact activation, tissue factor and other enzyme procoagulants. If results are short the nature of any unknown procoagulant can be probed using specific inhibitors or antibodies.

Samples: Therapeutic compounds should be diluted in sample diluent. Test plasmas from patients should be prepared from 3.2% citrate anticoagulated blood by centrifugation for 10 min. at 2000g according to CLSI guidelines (3).

Cautions: Avoid unintentional contact activation of test plasmas from glass or other negatively charged surfaces by using plastic materials throughout. Contact product and other enzyme procoagulants may gradually disappear from test plasmas in a time and temperature-dependent manner. Contains azide (<0.02%).

NB: NAPTT results are typically quite prolonged compared with regular clotting tests and may be quite variable (+/- 10%) due to exogenous variables such as surface contamination.

References:
1:European Pharmacopeia 5.0: 2.6.22.
2:Langdell RD, Wagner RH, Brinkhous KM. J Lab Clin Med.1953; 41; 637-647.
3:CLSI guidelines on blood collection and samples for clotting tests.

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