

## **HEMOSTASIS & THROMBOSIS LABORATORY**

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## PLATELET TESTING ASSAY DESCRIPTIONS AND SAMPLE REQUIREMENTS

| Test Names  | Description   | Collection Information  |
|---|---|---|
| Aspirin Resistance  | The VerifyNow Aspirin Test utilizes arachidonic<br>acid as the agonist to measure the antiplatelet<br>effect of aspirin.  | <ul> <li>Samples should be collected between 2 and 30 hours after ingestion of aspirin. MUST be collected in a Greiner BioOne Sodium Citrate Vacuette tube. Please contact lab to obtain this tube.</li> <li>Keep blood at room temperature and test must be run within 4 hours of collection.</li> </ul> |
| P2Y12 Test (Thienopyridines Monitor)  | The VerifyNow P2Y12 Test uses an ADP agonist<br>to induce platelet activation and ascertain the level<br>of platelet reactivity impaired by thienopyridines<br>such as clopidogrel or prasugrel or who have<br>discontinued them prior to surgery.  | <ul> <li>MUST be collected in a Greiner BioOne Na<br/>Citrate Vacuette tube. Please contact lab to<br/>obtain this tube.</li> <li>Keep blood at room temperature and test must<br/>be run within 4 hours of collection.</li> </ul>  |
| Platelet Aggregation, Plasma  | The aggregation includes exposure to the following agonists: Collagen, Epinephrine, Archidonate, TRAP, ADP, and Ristocetin. Testing of the 9-14 agonist concentrations are performed reflexively. A CBC/Diff will also be performed.  | <ul> <li>Contact lab before drawing. MUST BE SCHEDULED.</li> <li>Twelve 2.7 mL Na Citrate and one 3 mL EDTA</li> </ul>  |
| <ul> <li>Platelet Function/Aggregation Panel<br/>(includes the following tests)</li> <li>Platelet Aggregation, Plasma</li> <li>Platelet Glycoprotein Quantitation</li> <li>Platelet Quinacrine Uptake and<br/>Release</li> <li>CBC with Differential &amp; Retic</li> </ul> | The aggregation panel includes testing of all<br>agonists in the Platelet Aggregation as well as<br>the glycoprotein and quinacrine analysis by flow<br>cytometry, andCBC/Diff.   | <ul> <li>Contact lab before drawing. MUST BE SCHEDULED.</li> <li>Thirteen 2.7 mL Na Citrate, one 2.7 mL Na Citrate, and one 3 mL EDTA</li> </ul>  |
| Platelet Glycoprotein Quantitation  | This flow cytometry assay looks at the expression<br>of surface platelet glycoproteins GMP140 (CD62p),<br>GpIIB (CD41), and GpIb (CD42b) at the resting state<br>and after Thrombin Receptor Agonist Peptide<br>(TRAP) activation.  | <ul> <li>Contact lab before drawing. MUST BE SCHEDULED.</li> <li>One 2.7 mL Na Citrate.</li> </ul>  |
| Platelet Quinacrine Uptake & Re-<br>lease   | This flow cytometry assay tests for storage pool<br>deficiency and dense granule release defects<br>based on the selective binding of the fluorescent<br>dye quinacrine to adenine nucleotides in the<br>dense granules of platelets. Whole blood is<br>incubated with quinacrine and a platelet surface<br>antibody (CD42) in the presence and absence<br>of a platelet agonist. | <ul> <li>Contact lab before drawing. MUST BE SCHEDULED.</li> <li>One 2.7 mL Na Citrate.</li> </ul>  |
| Platelet Aggregation, Ristocetin Only   | The Ristocetin only aggregation includes<br>exposure to 6 concentrations of ristocetin.<br>An additional concentration will be performed,<br>reflexively, if results are abnormal.a CBC/Diff<br>will also be performed.   | <ul> <li>Contact lab before drawing. MUST BE SCHEDULED.</li> <li>Eight 2.7 mL Na Citrate and one 3 mL EDTA</li> </ul>   |

## For All Platelet Testing:

• Samples must be kept at room temperature and received by the performing lab IMMEDIATELY.

• Do not use a pneumatic tube system to transport samples and do not expose tubes to agitation as this can activate the platelets and cause erroneous results.