

The VerifyNow P2Y12 Test is a whole blood test to measure the level of platelet P2Y12 receptor blockade. Some antiplatelet medications [e.g. Plavix[®] (clopidogrel) and Effient[®] (prasugrel)] are designed to specifically block the P2Y12 receptor to reduce the risk of ischemic events.

What is Reported?

The lab report may look similar to the following:

Patient Example P2Y12 Results	Patient A	Units	Reference Range
P2Y12 Reaction Units	132	PRU	See Below (1)
BASE Platelet Reactivity	317	Base PRU	194-418 (2)
% P2Y12 Inhibition	58	%	See Below (1, 3)

- (1) PRU reference range is 194-418. Post Drug Results: Lower PRU levels and/or higher % inhibition are associated with expected antiplatelet effect. Values may be below the stated reference range above. The post-drug PRU values reported in the VerifyNow P2Y12 Test package insert are 18-435.
- (2) Base PRU Range: Range does not change pre or post-drug as it is not affected by the presence of a P2Y12 inhibitor and represents pre-drug PRU value. Base result less than 194 may be indicative of platelet dysfunction due to conditions outside of P2Y12 inhibitors pathway (e.g., IIb/IIIa inhibitors).
- (3) Presurgical Application: Return to baseline platelet function after discontinuation of P2Y12 inhibitors.

P2Y12 Reaction Units (PRU) indicate the amount of ADP-mediated aggregation specific to the platelet P2Y12 receptor.

BASE (Base PRU) - indicates the amount of mediated aggregation specific to the platelet PAR-1 and PAR-4 receptors. The BASE result is normalized to report units that are equivalent to baseline (pre-drug) PRU values.

Percent (%) P2Y12 Inhibition - is the percent change from baseline aggregation, and is calculated from the PRU result and the BASE result.



Interventional Procedure Application

Patients with inadequate response to their antiplatelet medications may be at significantly greater risk of myocardial infarction, stent thrombosis and death.²⁻⁵

Up to 1/3 of patients on antiplatelet medications may not receive the expected platelet inhibiting effect.⁶

Numerous factors may cause inadequate response,⁷ including:

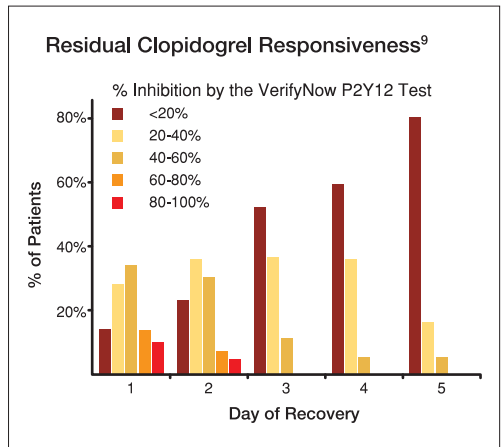
- Drug Interactions (e.g. Proton Pump Inhibitors)
- Genetic differences
- Pre-existing health conditions (e.g. diabetes)
- Non-compliance

Pre-Surgical Application

- Patients that have been administered P2Y12 inhibitors such as clopidogrel and prasugrel are at risk of perioperative bleeding.
- It is recommended to discontinue P2Y12 inhibitors for 5-7 days prior to surgery⁸, as it may take several days for platelet function to be restored.⁹
- Studies show that there is patient variability in response to P2Y12 inhibitors¹, and some patients may not need to wait 5-7 days⁹ to return to baseline platelet function.

After discontinuation, high P2Y12 % inhibition values indicate a residual antiplatelet effect.

Low P2Y12 % inhibition values are reported if the P2Y12 inhibitor is no longer producing the expected antiplatelet effect.



Conditions that May Affect Test Results

- Patient's exposure to GP IIb/IIIa inhibitors within:
 - 48 hours of eptifibatide (Integrilin[®])
 - 10 days of abciximab (ReoPro[®])
- Improper sample collection (platelet activation)

1. Jakubowski, JA. et al. Thromb Haemost 2008; 99: 409-415. 2. Patti, G. et al. J Am Coll Cardiol 2008;52:1128-33. 3. Marcucci, R. et al. Circulation 2009;119(2):237-42. 4. Cuissett, T. et al. Am J Cardiol 2008 Jun 15;101(12):1700-3. 5. Price, MJ. et al. Eur Heart J 2008 Apr;29(8):992-1000. 6. Dupont, AG. et al. Thromb Res 2009 May;124(1):6-13. 7. Maree, A. et al. Circulation 2007;115:2196-2207. 8. Eagle, KA. et al. Circulation 2005 Apr 19;111(15):2014. 9. Price, MJ. et al. Am J Cardiol 2006 Sep 1;98(5):681-4.

VerifyNow P2Y12 Test results should be interpreted in conjunction with other clinical and laboratory data available to the clinician. Please refer to Effient[®] Prescribing Information, Daiichi Sankyo, Inc and Eli Lilly and Company. Please refer to Plavix Prescribing Information, Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership.

The VerifyNow logo is a registered trademark of Accumetrics, Inc. Integrilin is a registered trademark of Millennium Pharmaceuticals. ReoPro is a registered trademark of Centocor, Inc. Plavix is a registered trademark of Sanofi-Synthelabo, Inc. Effient is a registered trademark of Eli Lilly and Company.