

What patients may benefit from CYP2C19 PLAVIX RESISTANCE testing?

Those individuals either considering or currently taking Clopidogrel.

How are the test results interpreted?

Normal-Matabolizer:

*1

Poor-Matabolizers:

*2, *3, *4, *5, *6, *7 and *8

Ultra-Matabolizer:

*17

How is the specimen collected?

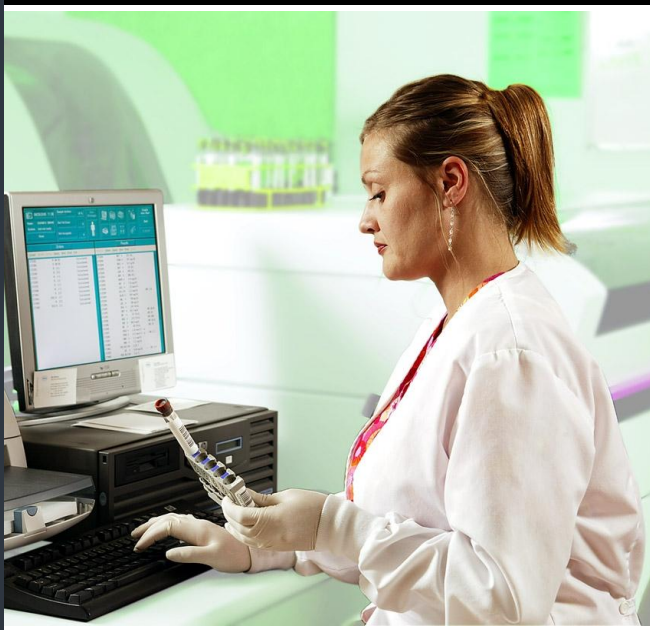
Specimen should be collected in two Lavender blood tubes.

How long do test results take?

Genotyping results typically take 7 business days.



Plavix Resistance (CYP2C19)



CYP2C19 assay assess how DNA makeup may affect metabolization of Clopidogrel (Plavix):

- Poor-metabolizer; increased risk of stroke, stent thrombosis, MI & or death.
- Ultra-matabolizer; increased risk of bleeding.
- Normal-metabolizer; Clopidogrel (Plavix) expected to function as intended.

Physicians may consider test results when formulating a tailored plan of care with Clopidogrel or consider the use of an alternative drug such as Prasugral (Effinet).

Med Health Services Laboratory is pleased to introduce **PLAVIX RESISTANCE (CYP2C19)** testing. Listed under the chemistry section of the Order Requisition, **PLAVIX RESISTANCE (CYP2C19)** is used to predict how well Clopidogrel (Plavix) will inhibit platelet formation based on a patient's gene composition.

Clopidogrel is a prodrug which is metabolized to its active component by several cytochrome P450 proteins of which CYP2C19 plays a key role. Variation in the CYP2C19 gene can result in variable metabolizer phenotypes. Among clopidogrel treated patients, one or more loss-of-function alleles (*2, *3, *4, *5, *6, *7, and *8) are associated with reduced platelet inhibition and an increased risk of cardiovascular complications, such as myocardial infarction, stroke, stent thrombosis, and/or death, as compared with homozygous wild type (*1/*1) gene carriers (HR 1.53-4.04).¹⁻³ Individuals who are carriers of the *17 allele are ultrametabolizers (UM) and have an enhanced response to clopidogrel. Ultrametabolizers are at increased risk of bleeding.⁴

Due to recent FDA recommendations, physicians are increasingly utilizing **PLAVIX RESISTANCE (CYP2C19) TESTING** to help determine the most appropriate plan of care by categorizing each patient as a normal metabolizer, poor metabolizer or ultrametabolizer.

Please contact the lab with questions and or other test information.