

PGX-CYP2C19 StripAssay®

Customize drug therapy according to *CYP2C19* alleles associated with altered enzyme activity

- The liver enzyme CYP2C19 is responsible for the metabolism of a huge number of currently prescribed drugs
- Differences in enzymatic activity due to polymorphisms in the CYP2C19 gene contribute to the inter-individual variability in drug response
- About 40% of Europeans show a defective allele, either carrying a non-function allele or an increased function allele, whereas up to 30% of Asians are affected
- Knowledge of the patient's metabolizer status allows for a more efficient and successful treatment with potentially less adverse side effects
- CYP2C19 genotyping helps to determine the optimum type and dosage of a drug for a specific therapy



Individualize drug therapy according to CYP2C19 genotype
ViennaLab PGX-CYP2C19 StripAssay® detects the most common variants with impaired enzyme activity and one variant with increased activity

- **Simple protocol for complex diagnostic questions**
- **Manual or automated**
- **No expensive lab equipment required**
- **Ready-to-use reagents**
- **CE-labelled complete kit - DNA extraction included**

Cytochrome P450 2C19

CYP2C19, a member of the cytochrome P450 superfamily, is an important liver enzyme involved in the metabolism of xenobiotics in the body. Numerous drugs prescribed as platelet inhibitors (clopidogrel), tricyclic antidepressants (amitriptyline, doxepin), antidepressants (citalopram, sertraline), or proton pump inhibitors (omeprazole, pantoprazole) are substrates

for CYP2C19. Patients with defective enzyme variants are at risk of developing severe adverse reactions due to drug accumulation and toxicity. Conversely, when formation of an active metabolite is essential for the action of a drug, these patients can exhibit diminished response to therapy compared to normal metabolizers.

CYP2C19 alleles	*1	*2	*3	*4	*5	*6	*7	*8	*17
*1	NM	IM	IM	IM	IM	IM	IM	IM	RM
*2		PM	PM	PM	PM	PM	PM	PM	IM
*3			PM	PM	PM	PM	PM	PM	IM
*4				PM	PM	PM	PM	PM	IM
*5					PM	PM	PM	PM	IM
*6						PM	PM	PM	IM
*7							PM	PM	IM
*8								PM	IM
*17									UM


Interpretation of metabolizer status. UM...ultra rapid metabolizer; RM...rapid metabolizer; NM...normal metabolizer; IM...intermediate metabolizer; PM...poor metabolizer

The three steps of the StripAssay®

Step	Requirement
1. Amplification: Multiplex PCR. Simultaneous biotin-labeling	Thermocycler
2. Hybridization: Directly on the StripAssay® teststrips	Incubator
3. Identification: Labeled products detected by streptavidin-alkaline phosphatase	Naked eye or scanner & software

Order Information:

PGX-CYP2C19 StripAssay®: 4-750 (20 tests/kit)

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