

VERINOME

Pharmacogenomic & Genetic Marker Summary

Prepared for: _____

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Source file: sample_genome_v5.txt (parsed on your device, never uploaded; your file and your name are not stored)

Every finding below is graded A to D by the strength of the evidence behind it, and each carries its source. A = strong (clinical guideline or large replicated studies), B = moderate, C = limited or mixed, D = weak or single-study. The grade describes the evidence, not the size of the effect or the person.

Markers interpreted: 8 Strong evidence (A): 5 Moderate (B): 0 Limited (C): 2 Weak (D): 1

1 Pharmacogenomics (CPIC-guideline markers) (3 markers)

A **CYP2C19** rs4244285 **GA**

You carry one copy of the common *2 non-working version, which slows CYP2C19 somewhat (intermediate metabolizer if your other CYP2C19 markers are normal). This matters most for the blood-thinner clopidogrel and some antidepressants and acid-reducers.

One copy of CYP2C19*2 (c.681G>A, rs4244285), a well-established no-function allele caused by an aberrant splice site. Assuming normal-function results at *3 and *17, this corresponds to an INTERMEDIATE metabolizer. CPIC-relevant implications (educational, not dosing advice): reduced conversion of the antiplatelet clopidogrel to its active form, associated with lower platelet inhibition and higher cardiovascular event rates after PCI/ACS (CPIC notes prasugrel or ticagrelor may be considered where clinically appropriate); modestly higher plasma exposure to CYP2C19-metabolized SSRIs (citalopram, escitalopram, sertraline), proton-pump inhibitors, and voriconazole. Cannot be interpreted in isolation from the other CYP2C19 markers.

Pharmacogenomic · CPIC

A **VKORC1** rs9923231 **CC**

For this warfarin gene you have the version linked to needing a relatively higher warfarin dose. This does not affect other drugs.

VKORC1 -1639 G/G (the plus-strand C allele corresponds to the promoter G allele). Higher VKORC1 expression and therefore a HIGHER warfarin dose requirement on average. VKORC1 -1639 is the single strongest common predictor of warfarin dose and is a CPIC Level A marker used with CYP2C9. Applies only to warfarin/vitamin-K antagonists, not to NSAIDs or phenytoin.

Pharmacogenomic · CPIC

A **SLCO1B1** rs4149056 **TT**

Two normal copies of the SLCO1B1 statin-transporter gene. At this marker your genetics do not raise the odds of statin-related muscle side effects.

SLCO1B1 (OATP1B1 hepatic uptake transporter) normal function - *1/*1 at c.521T>C (Val174Ala). Typical statin plasma exposure and the lowest genetic risk of statin-associated musculoskeletal symptoms (SAMS). CPIC assigns normal-function SLCO1B1 and no dose caution on this basis.

Pharmacogenomic · CPIC

2 Trait and lifestyle markers (5 markers)

D **MTHFR** rs1801133 **CT**

One copy of the 'slow' variant. In practice this makes little to no difference. Major medical societies advise against acting on it.

MTHFR 677 C/T (heterozygous): roughly ~35% reduced in-vitro MTHFR activity versus C/C, but essentially no clinical consequence in folate-replete people. Not associated with meaningful thrombosis or cardiovascular risk after adjustment.

Trait · ACMG

C **CYP1A2** rs762551 **AC**

One faster and one slower copy. Often grouped with slower caffeine metabolizers. Effect is modest and context-dependent.

Heterozygous CYP1A2*1F/*1A; intermediate/reduced inducible activity, commonly grouped with slow metabolizers

Trait · None

A **ALDH2** rs671 **GG**

You have the fully-active form of the enzyme that breaks down acetaldehyde. Typically no alcohol-flush reaction from this gene.

ALDH2*1/*1; normal aldehyde dehydrogenase 2 activity

Trait · None

A **MCM6/LCT** rs4988235 **AA**

You very likely keep digesting the milk sugar lactose as an adult (lactase persistent).

Homozygous A (the -13910*T persistence allele, in MCM6 regulating LCT). Lactase persistence: lactase stays active into adulthood.

Trait · None

C **COMT** rs4680 **AG**

You have one copy each - intermediate dopamine-clearing activity.

Val/Met heterozygous; intermediate COMT activity.

Trait · None

How to read this report

1. Interpretations are educational, not a diagnosis. A consumer genotyping array reads a limited set of positions and is not a clinical test.
2. A genotype is context, not an instruction. Do not start, stop, or change a medication based on this document alone; weigh it with the full clinical picture.
3. Only markers with a defensible source are interpreted. Weak evidence is graded D and labeled, never silently upgraded.

Sources cited in this report

1. CPIC
2. ACMG
3. None