DEMO DEMO

BIOGENIQ

Sample number	BIO-DEMO	**Report date**	2018-11-23
Date of birth	1990-02-02	**Specimen**	Saliva
Sex	Male		
Pharma Profile(s)	Cardiology		

Pharmacogenetic report

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The Pharma profile is a clinical decision support tool aimed at reducing the risks of adverse drugs reactions and therapeutic failure. The Pharma profile does not replace existing prescription guides. Response to medication can be influenced by factors not evaluated in this report. Response to treatment may be different than predicted in this report. The Pharma profile does not diagnose any disorder, condition or disease.

Antiarrhythmic (class Ic)

- (!) **Flecainide** (TAMBOCOR®)
- (!) **Propafenone** (RYTHMOL®)

Anticoagulant

- **Acenocoumarol** (SINTROM®)
- **Warfarin** (COUMADIN®)

Antiplatelet agent

- **Clopidogrel** (PLAVIX®)

Beta blocker

- (!) **Carvedilol** (COREG®)
- (!) **Metoprolol** (LOPRESOR®)

Statin

- **Simvastatin** (ZOCOR®)

Legend: (!) Increased risk of adverse drug reactions (⚠) Increased risk of therapeutic failure

PHARMACOGENETIC RECOMMENDATIONS

Acenocoumarol (SINTROM®) GENES: ***CYP2C9, VKORC1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to acenocoumarol therapy

Your body should metabolize and eliminate acenocoumarol normally. Therefore, your genetic results do not suggest any change to acenocoumarol therapy.

- No change to the recommended dose.

(!) **Carvedilol** (COREG®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

Increased risk of adverse drug reactions with standard dosing of carvedilol

Your body may metabolize and eliminate carvedilol at a slower rate than expected.

- Be alert to adverse drug reactions (e.g., dizziness).
- Consult your healthcare provider to optimize your therapy.

Clopidogrel (PLAVIX®) GENE: ***CYP2C19*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to clopidogrel therapy

Your body should metabolize and eliminate clopidogrel normally. Therefore, your genetic results do not suggest any change to clopidogrel therapy.

- No change to the recommended dose.

(!) **Flecainide** (TAMBOCOR®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

Increased risk of adverse drug reactions with standard dosing of flecainide

Your body may metabolize and eliminate flecainide at a slower rate than expected.

- Be alert to adverse drug reactions (e.g., slow heart rate).
- A dose adjustment could improve your treatment.
- Consult your healthcare provider to optimize your therapy.

(!) **Metoprolol** (LOPRESOR®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

Increased risk of adverse drug reactions with standard dosing of metoprolol

Your body may metabolize and eliminate metoprolol at a slower rate than expected.

- Be alert to adverse drug reactions (e.g., headache, dizziness, fatigue, sleep disturbances, dyspnea, cold extremities).
- A dose adjustment or the use of an alternative medication could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

(!) **Propafenone** (RYTHMOL®) GENE: ***CYP2D6*** LEVEL OF EVIDENCE: **1**

Increased risk of adverse drug reactions with standard dosing of propafenone

Your body may metabolize and eliminate propafenone at a slower rate than expected.

- Be alert to adverse drug reactions (e.g., fatigue, nausea, abnormal muscle control and movement, cardiac arrhythmia, abnormal bleeding, shortness of breath, swelling of the feet, shaking or chills).
- A dose adjustment or the use of an alternative medication could improve treatment efficacy.
- Consult your healthcare provider to optimize your therapy.

Simvastatin (ZOCOR®) GENE: ***SLCO1B1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to simvastatin therapy

Your body should metabolize and eliminate simvastatin normally. Therefore, your genetic results do not suggest any change to simvastatin therapy.

- No change to the recommended dose.

Warfarin (COUMADIN®) GENES: ***CYP2C9***, ***VKORC1*** LEVEL OF EVIDENCE: **1**

No genetic variation identified that would prompt changes to warfarin therapy

Your body should metabolize and eliminate warfarin normally. Therefore, your genetic results do not suggest any change to warfarin therapy.

- No change to the recommended dose.

Legend: (!) Increased risk of adverse drug reactions ⚠ Increased risk of therapeutic failure

RESULTS

GENES	TESTED ALLELES	GENOTYPES	PHENOTYPES
CYP2C19	*1, *2, *3, *4, *5, *6, *7, *8, *17	*1/*1	Normal metabolizer
CYP2C9	*1, *2, *3, *4, *5, *6, *8, *11, *12, *13, *15, *25, *27	*1/*1	Normal metabolizer
CYP2D6	*1, *2, *3, *4, *5, *6, *7, *8, *9, *10, *11, *12, *14, *15, *17, *19, *41, *69, CNV	*4/*5	Poor metabolizer
SLCO1B1	*1, *5	*1/*1	Normal activity
VKORC1	*1, *2	*1/*1	Normal activity

CYP2C19: Cytochrome P450 2C19; CYP2C9: Cytochrome P450 2C9; CYP2D6: Cytochrome P450 2D6; SLCO1B1: Solute carrier organic anion transporter family member 1B1; VKORC1: Vitamine K epoxide reductase complex subunit 1

Levels of evidence

1 - Recommendation based on pharmacogenetic information on the drug label approved by Health Canada and/or the US Food and Drug Administration (FDA). A level 1 will also be attributed if the recommendation originates from a clinical guideline published by the Clinical Pharmacogenetics Implementation Consortium (CPIC) or the Dutch Pharmacogenomics Working Group (DPWG).

2 - Recommendation based on the results of multiple studies showing a statistically significant effect of a genetic variant on drug response.

3 - Recommendation based on the results of a single study showing a statistically significant effect of a genetic variant on drug response and/or drug pharmacokinetics.

4 - Recommendation based only on knowledge of the principal metabolizing enzyme without in vivo or in vitro data demonstrating the impact that genetic variability has on drug response or pharmacokinetics.