medcheck from dnalife

PATIENT INFORMATION

NAME: Sample Patient
DOB: 15/Nov/1984
SEX AT BIRTH: Female

SPECIMEN DETAILS

BARCODE: TST-NL-000000
SAMPLE ID: 10001
TYPE: DBS
COLLECTED: 14/Apr/2026

ORDERED BY

Nordic Laboratories
GENERATED: 21/Apr/2026

Summary of Genetic and Phenotype Data

Attention
A clinically significant allele was detected in the HLA-A gene which is associated with increased risk for drug-induced cutaneous adverse reactions (SCAR), including Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN), drug reaction with eosinophilia and systemic symptoms (DRESS), and maculopapular exanthema (MPE), for the following drugs:

Carbamazepine: See FDA product monograph and CPIC guideline(Tegretol Product Monograph, 2018)

Gene	Genotype Result	Activity Score	Phenotype Result OR Genotype Explanation
CYP2B6	*1/*1	N/A	Normal Metabolizer
CYP2C (rs12777823)	G/G	N/A	Typical response to warfarin (no change in PGx-related dose requirement)
CYP2C19	*1/*17	N/A	Rapid Metabolizer
CYP2C9	*1/*1	2	Normal Metabolizer
CYP2D6	*1/*1	2	Normal Metabolizer
CYP3A4	*1/*1	N/A	Normal Metabolizer
CYP3A5	*3/*3	N/A	Poor Metabolizer
CYP4F2 (rs2108622)	C/C	N/A	Typical response to warfarin (no change in PGx-related dose requirement)
DPYD	WT/WT	2	Normal Metabolizer
NUDT15	*1/*1	N/A	Normal Metabolizer
SLCO1B1	*1/*5	N/A	Decreased Function
TPMT	*1/*1	N/A	Normal Metabolizer
UGT1A1	*1/*1	N/A	Normal Metabolizer
VKORC1 (rs9923231)	A/G	N/A	Medium warfarin sensitivity (moderately reduced PGx-related dose requirement)

Gene	Allele	Result
HLA-A	*31:01	Positive
HLA-B	*15:02	Negative
HLA-B	*58:01	Negative
HLA-B	*57:01	Negative

This is a short summary of the full medication report. The patient's results are now accessible within the clinical decision support software, TreatGx and ReviewGx, and can be used with other clinical information to enable precision prescribing and medication management. The final genotype/phenotype call is at the discretion of the laboratory director. Medication changes should only be initiated at the discretion of the patient's healthcare provider after a full assessment.

Methods

Pharmacogenetic analysis was performed using the Agena Bioscience MassARRAY® system, a targeted genotyping platform that combines multiplex PCR amplification with MALDI-TOF mass spectrometry to detect clinically relevant DNA variants with high accuracy. In this method, genomic DNA undergoes end-point multiplex PCR, followed by shrimp alkaline phosphatase (SAP) cleanup and a single-base extension reaction, enabling precise characterization of selected SNPs, insertions, deletions, and copy number variations relevant to pharmacogenetic gene pathways. After extension, reaction products are dispensed onto a SpectroCHIP® array and analyzed by MALDI-TOF mass spectrometry, which distinguishes alleles based on their mass-to-charge ratio. The accuracy and concordance of every run is controlled with internal positive and negative controls. Preceding the MassARRAY® run, DNA is extracted with magnetic bead-based chemagic 360 system (Revvity).

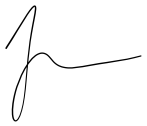
Limitations

The annotations and interpretations provided in this report are based on scientific literature and do not take into account drug-drug interactions, medical conditions or other clinical factors that may affect medication response. Gene-drug interactions are ranked according to guidelines, level of evidence and clinical utility. GenXys reports and TreatGx Clinical Decision Support are regularly updated. Current predicted phenotype and allele functionality may change in the future depending on new evidence. Phenotype annotations for CYP2C9 are based on total activity scores as defined by CPIC[79]. Genetic test results and interpretation may be inaccurate for individuals who have undergone or are receiving non-autologous blood transfusion, tissue, or organ transplant therapies.

The report includes alleles of proteins involved in the metabolism of many medications. In rare cases, a variant that is not covered may be typed as *1 or other variants. In the case of pseudogenes and mutations in the untranslated regions of genes, incorrect allele typing may occur despite proper SNP detection. Preferential amplification of one allele over another present in the sample may also lead to incorrect genotyping.

Liability Disclaimer

This test was developed and its performance characteristics determined by GenXys Health Care Systems. It has not been cleared or approved by the US Food and Drug Administration. The report is not a diagnostic test, and TreatGx is not a prescribing system. You should discuss your pharmacogenetic information with a physician or other health care provider before you act upon the pharmacogenetic information resulting from this report. The medication brand names are not an exhaustive list and do not include combination therapies. Not all medications in this report are included in the TreatGx or ReviewGx software or other GenXys derivative works.



Dr Juha Matilainen, PhD, Laboratory Director

21/Apr/2026

Date of Signature

Medication Summary Table

The Medication Summary Table lists medications with pharmacogenetic associations, organized by therapeutic area and drug-gene interaction severity. Some medications appear in multiple columns within moderate drug-gene interactions due to various possible effects or associations with multiple genes. The highest severity is prioritized (moderate/severe) from all relevant sources and genes for a medication.
Warfarin appears in multiple columns because its dosing cannot be predicted based on PGx alone and other factors may increase or reduce dose requirement. See Medication Report for full details.
*** Indicates current medications**

	1 Mild or no drug-gene interaction: no PGx-based action; standard precautions apply	2 Moderate drug-gene interaction: Consider alternative medications	2 Moderate drug-gene interaction: May require an increased dose	2 Moderate drug-gene interaction: May require a reduced dose	2 Moderate drug-gene interaction: May reduce efficacy	2 Moderate drug-gene interaction: May increase adverse events	3 Serious drug-gene interaction: avoid/select alternative
Analgesia	Carisoprodol Celecoxib Codeine Desipramine Flurbiprofen Hydrocodone Ibuprofen Lamotrigine Meloxicam Methadone Nortriptyline Oliceridine Oxcarbazepine Oxycodone Piroxicam Tenoxicam Tramadol	Amitriptyline Imipramine			Amitriptyline Imipramine	Amitriptyline Imipramine	Carbamazepine

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	Venlafaxine						
Autoimmune	Azathioprine Mercaptopurine Siponimod Thioguanine		Tacrolimus	Cyclosporine			
Cancer	Capecitabine Erdafitinib Fluorouracil Gefitinib Irinotecan Mercaptopurine Pazopanib Tamoxifen Thioguanine						
Cardiovascular	Carvedilol Clopidogrel Flecainide Mavacamten Metoprolol Nebivolol Propafenone	Pitavastatin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Lovastatin Simvastatin

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	Propranolol						
Endocrinology	Nateglinide						
Gastroenterology	Dronabinol Esomeprazole Meclizine Metoclopramide Ondansetron Rabeprazole		Dexlansoprazole Lansoprazole Omeprazole Pantoprazole		Dexlansoprazole Lansoprazole Omeprazole Pantoprazole		
Infection	Abacavir Atazanavir Efavirenz Nevirapine						Voriconazole
Mental Health	Amoxapine Amphetamine Aripiprazole Aripiprazole lauroxil Brexpiprazole Clozapine Desipramine	Amitriptyline Citalopram Clomipramine Doxepin Escitalopram Imipramine Trimipramine	Atomoxetine Citalopram Escitalopram		Amitriptyline Atomoxetine Citalopram Clomipramine Doxepin Escitalopram Imipramine	Amitriptyline Clomipramine Doxepin Imipramine Trimipramine	Carbamazepine

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1	2					3
Mild or no drug-gene interaction: no PGx-based action; standard precautions apply	Moderate drug-gene interaction					Serious drug-gene interaction: avoid/select alternative
	 Consider alternative medications	 May require an increased dose	 May require a reduced dose	 May reduce efficacy	 May increase adverse events	
Dextromethorphan/ Bupropion				Trimipramine		
Diazepam						
Fluoxetine						
Fluvoxamine						
Haloperidol						
Iloperidone						
Lamotrigine						
Lofexidine						
Methadone						
Mirtazapine						
Nortriptyline						
Oxcarbazepine						
Paroxetine						
Perphenazine						
Pimozide						
Protriptyline						
Quetiapine						
Risperidone						
Sertraline						
Thioridazine						
Venlafaxine						
Viloxazine						
Vortioxetine						
Zuclopenthixol						

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Neurology	Brivaracetam Clobazam Deutetrabenazine Dextromethorphan/ Quinidine Diazepam Donepezil Fosphenytoin Galantamine Lamotrigine Metoprolol Oxcarbazepine Phenytoin Pitolisant Propranolol Tetrabenazine Valbenazine Venlafaxine	Amitriptyline			Amitriptyline	Amitriptyline	Carbamazepine
Rheumatology	Allopurinol Azathioprine Celecoxib Flurbiprofen Ibuprofen						

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	Meloxicam Piroxicam Tenoxicam						
Urology	Darifenacin Fesoterodine Mirabegron Tamsulosin Tolterodine						
Other	Abrocitinib Avatrombopag Cevimeline Elagolix Eliglustat Flibanserin						