

PATIENT INFORMATION

NAME: Demo FGIH DOB: 12/May/1982 SEX AT BIRTH: Female

SPECIMEN DETAILS

BARCODE: Demo1_FGIH SAMPLE ID: Demo1_FGIH TYPE: Swab COLLECTED: 18/Dec/2024 **ORDERED BY**

Clinical Lead REPORT GENERATED: 24/Jan/2025 (GMT)

Your Pharmacogenomics Report

XAttoDiagnostics



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This pharmacogenetic information is based on best evidence compiled from guidelines and databases including the FDA Table of Pharmacogenetic Associations and the Clinical Pharmacogenetics Implementation Consortium (CPIC).

Please refer to the Methods, Limitations, and Liability Disclaimer at the end of this report.

Medication Summary

The Medication Summary is a list of medications with evidence for the use of pharmacogenetic information, organized by their therapeutic area. Medications are further organized based on druggene interactions. Health care providers should consider the information contained in the Medication Report before making any clinical or therapeutic decisions.

- Mild or no known drug-gene interaction
- A Moderate drug-gene interaction
- Serious drug-gene interaction: avoid/select alternative

Analgesia	Analgesia	Analgesia	Autoimmune	Cancer	Cardiovascular
<u>2</u>	- 🛕	- 🛕	2	<u> </u>	<u> </u>
Alfentanil	Hydrocodone	Tenoxicam	Tacrolimus	Thioguanine	Mavacamten
Amitriptyline	Ibuprofen	Tramadol	<u> </u>	Cardiovascular	Metoprolol
<u>A</u>	- 2	– Venlafaxine	Thioguanine	2	Nebivolol
Carisoprodol	Imipramine	Autoimmune	Cancer	Atorvastatin	2
Celecoxib	<u> </u>	- 1	A	A	Pitavastatin
Codeine	Meloxicam	Azathioprine	Capecitabine	Carvedilol	Pravastatin
Desipramine	2	- 2	Erdafitinib	Clopidogrel	<u> </u>
2	Morphine	Cyclosporine	Fluorouracil	Flecainide	Propafenone
Fentanyl	<u> </u>	- 1	Gefitinib	<u>A</u>	Propranolol
<u>^</u>	- Nortriptyline	Mercaptopurine	Mercaptopurine	Fluvastatin	2
Flurbiprofen	Oliceridine	Methotrexate	Methotrexate	A	Rosuvastatin
	Piroxicam	Siponimod	Tamoxifen	Lovastatin	3
					<u> </u>

Simvastatin

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FORENSIC GENOMICS INNOVATION HUB

Infection

Voriconazole

Efavirenz

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Cardiovascular
2
Warfarin
Endocrinology
<u>^</u>
Nateglinide
Gastroenterology
2
Dexlansoprazole
Dronabinol

Esomeprazole

Lansoprazole

Meclizine Methotrexate Metoclopramide

Omeprazole

Ondansetron

Pantoprazole

Rabeprazole

Mental Health Amitriptyline <u>A</u> -

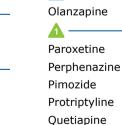
Amoxapine Amphetamine Aripiprazole Aripiprazole lauroxil Atomoxetine Brexpiprazole

Bupropion Citalopram Clomipramine Clozapine

2 -

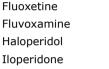
Desipramine Diazepam

Doxepin



Escitalopram

...Mental Health



Imipramine

Lofexidine Δ

Methylphenidate

Nicotine replacement therapy Nortriptyline



Risperidone

Sertraline Thioridazine 2 Trimipramine

...Mental Health

Venlafaxine

Viloxazine Vortioxetine

Zuclopenthixol Neurology

2

Amitriptyline

<u>A</u> -

Brivaracetam Clobazam Deutetrabenazine Diazepam Donepezil Fosphenytoin Galantamine Metoprolol Phenytoin

Pitolisant

Propranolol

...Neurology Tetrabenazine Valbenazine Venlafaxine Other

4 -Abrocitinib Avatrombopag Cevimeline Elagolix Eliglustat Eltrombopag Flibanserin Lusutrombopag Oral contraceptives

Respiratory

Salmeterol

Rheumatology

Azathioprine Celecoxib Flurbiprofen Ibuprofen Meloxicam

...Rheumatology

Methotrexate Piroxicam



Darifenacin Fesoterodine Mirabegron Tamsulosin Tolterodine

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Medication Summary Table

Some medications may appear in multiple columns below due to various possible effects of the drug-gene interaction. For warfarin, several factors influence dosing calculation alongside PGx. See Medication Report for details.

Mild or no known drug-gene interaction	Moderate drug-gene interaction				
	Consider alternative medications	May require an increased dose	May require a reduced dose	May reduce efficacy	May increase adverse events
gesia Carisoprodol Celecoxib Codeine Desipramine Flurbiprofen Hydrocodone Ibuprofen Meloxicam Nortriptyline Oliceridine Piroxicam Tenoxicam Tramadol Venlafaxine	Amitriptyline Imipramine		Alfentanil Fentanyl Morphine	Amitriptyline Fentanyl Imipramine	Amitriptyline Imipramine
oimmune Azathioprine Mercaptopurine Methotrexate Siponimod		Cyclosporine Tacrolimus		Tacrolimus	



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	Mild or no known drug-gene interaction	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	
	Thioguanine						
Cancer	Capecitabine Erdafitinib Fluorouracil Gefitinib Mercaptopurine Methotrexate Tamoxifen Thioguanine						
Cardiovascular	Carvedilol Clopidogrel Flecainide Mavacamten Metoprolol Nebivolol Propafenone Propranolol	Atorvastatin Fluvastatin Pitavastatin Pravastatin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Warfarin	Atorvastatin Fluvastatin Pitavastatin Pravastatin Rosuvastatin Warfarin	Lovastatin Simvastatin
Endocrinology	Nateglinide						
Gastroenterology	Dronabinol Esomeprazole Meclizine		Dexlansoprazole Lansoprazole Omeprazole		Dexlansoprazole Lansoprazole Omeprazole		

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	Mild or no known drug-gene interaction	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	
	Methotrexate Metoclopramide Ondansetron Rabeprazole		Pantoprazole		Pantoprazole		
nfection		Voriconazole		Efavirenz	Voriconazole	Efavirenz	
fental Health	Amoxapine Amphetamine Aripiprazole Aripiprazole lauroxil Atomoxetine Brexpiprazole Desipramine Diazepam Fluoxetine Fluoxetine Haloperidol Iloperidone Lofexidine Nicotine replacement therapy Nortriptyline Paroxetine Perphenazine Pimozide	Amitriptyline Citalopram Clomipramine Doxepin Escitalopram Imipramine Trimipramine	Citalopram Escitalopram		Amitriptyline Bupropion Citalopram Clomipramine Doxepin Escitalopram Imipramine Methylphenidate Olanzapine Risperidone Trimipramine	Amitriptyline Clomipramine Clozapine Doxepin Imipramine Risperidone Trimipramine	



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	Mild or no known drug-gene interaction	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	
	Protriptyline Quetiapine Sertraline Thioridazine Venlafaxine Viloxazine Vortioxetine Zuclopenthixol						
Neurology	Brivaracetam Clobazam Deutetrabenazine Diazepam Donepezil Fosphenytoin Galantamine Metoprolol Phenytoin Pitolisant Propranolol Tetrabenazine Valbenazine Venlafaxine	Amitriptyline			Amitriptyline	Amitriptyline	
Other	Abrocitinib						



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	Mild or no known drug-gene	Moderate drug-gene					Serious drug-gene interaction:
	interaction	Consider alternative medications	May require an increased dose	May require a reduced	May reduce efficacy	A →→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→	avoid/select alternative
	Avatrombopag Cevimeline Elagolix Eliglustat Eltrombopag Flibanserin Lusutrombopag Oral contraceptives			0030	encacy	eventa	
Respiratory	Salmeterol						
Rheumatology	Azathioprine Celecoxib Flurbiprofen Ibuprofen Meloxicam Methotrexate Piroxicam Tenoxicam						
Urology	Darifenacin Fesoterodine Mirabegron Tamsulosin Tolterodine						

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Г		A Moderate drug-gene interaction		Serious drug-gene interaction: avoid/select alternative

May require a reduced

dose

May reduce

efficacy

May increase adverse

events

May require an

increased dose

Summary of Genetic Lab Data & Phenotypes

Consider alternative

medications

Gene	Allele Result	Phenotype Result
СҮРЗА4	*1A/*1B	Normal Metabolizer
CYP2D6	*1/*10	Normal Metabolizer
CYP2C9	*1/*1	Normal Metabolizer
CYP2C19	*1/*17	Rapid Metabolizer
SLC01B1	*5/*15	Poor Function
CYP2B6	*5/*6	Intermediate Metabolizer
СҮРЗА5	*1/*3	Intermediate Metabolizer
DPYD	*1/*1	Normal Metabolizer
NUDT15	*1/*1	Normal Metabolizer
ТРМТ	*1/*1	Normal Metabolizer

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

The results meet stringent quality control metrics for DNA isolation and genotyping. SNPs are processed in an OpenArray platform. Each call has an estimated quality value >95%, based on the autocaller algorithm in the TaqMan® Genotyper software (ThermoFisher Scientific). Copy number calls are accepted when confidence values are >95%.





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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. The AttoDiagnostics pharmacogenetics platform, 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 CPIC⁷⁹. 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 by ThermoFisher Scientific and its performance characteristics has been validated by AttoDiagnostics Ltd and verified on 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.

DO NOT MAKE ANY CHANGES TO YOUR CURRENT MEDICATION(S) WITHOUT TALKING TO YOUR DOCTOR FIRST. While genetics is important, other factors also contribute to how you react to medications. The final choice of medication used will be based on your health care provider's professional judgement and may be different from what is recommended in this report. This test does not determine your risk of any health problem. It only evaluates select portions of your DNA that help predict how you may react to the medications covered.

P Agyirey-Kwakye, Laboratory Director, BS54287

24/Jan/2025 (GMT)

Date of Signature

Note: AttoDiagnostics is a leading precision healthcare genetic testing company. We provide research and diagnostic testing for brands, medical institutions and healthcare service providers including pharmacies to deliver life-changing personalised healthcare solutions.