GenePharma

Supplement & Drug Metabolism Analysis · 110+ Genes · 250+ Supplements · Absorption, Bioavailability & Interactions

PATIENT **Sarah Mitchell**	DATE OF BIRTH **1986-05-14 (Age 38)**	SAMPLE TYPE **Buccal (Cheek) Swab**	SAMPLE ID **GM-PH-2024-03556**
REPORT ID **GPH-2024-27644**	COLLECTION DATE **2024-09-30**	REPORT DATE **2024-10-07**	LABORATORY **Gene Matrix CLIA Lab, Chicago, IL**
CLIA / NPI **14D2276402 / 1225729312**	ORDERING PROVIDER **Self-Ordered (DTC)**	METHOD **Next-Generation Sequencing (NGS)**	

110+ GENES ANALYZED	**250+** SUPPLEMENTS COVERED	**6** ANALYSIS CATEGORIES	**3** DOSING ADJUSTMENTS

/ Executive Summary

Your GenePharma profile reveals how your genes affect supplement absorption, drug metabolism, and nutrient bioavailability. Three adjustments matter most: your ABCB1 variant reduces P-glycoprotein function (fat-soluble vitamins absorb up to 40% less efficiently), your SLCO1B1 variant alters statin and supplement uptake, and a GSTM1 null genotype reduces phase II detoxification capacity — meaning some supplements can accumulate rather than clear. Your SLC22A1 function is normal, so standard dosing applies to glucose-regulating supplements like berberine.

Why this matters: CYP3A4 metabolizes 60% of all drugs and supplements, and ABCB1 variants can reduce fat-soluble vitamin absorption by up to 40%. Genetic testing can optimize supplement dosing — reducing waste and improving efficacy by up to 300%.

/ Genetic Findings

GENE	VARIANT	GENOTYPE	IMPACT	RECOMMENDATION
ABCB1	rs1045642	T/T	REDUCED ABSORPTION Reduced P-glycoprotein function affecting absorption of fat-soluble vitamins and certain medications.	Consider higher doses of vitamin D, CoQ10, and omega-3 supplements for optimal absorption.
SLCO1B1	rs4149056	T/C	ALTERED UPTAKE Altered transporter function affecting statin and supplement uptake into the liver.	Monitor cholesterol-lowering supplement effectiveness; consider alternative formulations.

SLC22A1	`rs628031`	G/G	NORMAL Normal organic cation transporter function for metformin and berberine absorption.	Standard dosing appropriate for glucose-regulating supplements.
GSTM1	`Deletion (null genotype)`	Null	REDUCED DETOX Glutathione S-transferase null genotype — reduced phase II detoxification and antioxidant defense; certain compounds clear more slowly and can accumulate.	Favor lower, food-based antioxidant dosing over megadoses; support glutathione with cruciferous vegetables, NAC (with provider guidance), and adequate protein.
CYP3A4	`rs35599367`	G/G (normal)	NORMAL Normal activity of the enzyme that metabolizes 60% of all drugs and supplements.	Standard supplement and medication metabolism; no adjustment needed.
UGT1A1	`rs8175347 (TA repeat)`	6/7	MODERATE IMPACT Mildly reduced glucuronidation — affects clearance of certain supplements, herbal compounds, and bilirubin.	Introduce new herbal supplements one at a time at conservative doses; monitor tolerance.

/ Pharma Profile Summary

Your GenePharma results across the six analyzed categories.

CATEGORY	RESULT	CLINICAL IMPLICATION
Drug Absorption — ABCB1, SLCO1B1, SLC22A1	ADJUSTED DOSING	Fat-soluble vitamins may need higher doses; transporter-affected products need monitoring.
Bioavailability — fat-soluble vitamins & CoQ10	UP TO 40% REDUCED	Take with fat-containing meals; consider liposomal or emulsified formulations.
Supplement Metabolism — CYP3A4, UGT1A1	MOSTLY NORMAL	Standard metabolism for the majority of the 250+ covered supplements.
Herbal Interactions — NR1I2 (pregnane X receptor)	REVIEW	Herb-drug interaction screen included; flag combinations with your pharmacist.
Nutrient-Drug Interactions	REVIEW	Interaction table for your covered medications and supplements included in full report.
Detoxification — GSTM1, FMO3, GSTP1	SUPPORT NEEDED	GSTM1 null — conservative dosing and glutathione-supportive diet recommended.

/ Personalized Recommendations

Optimized Supplement Stack (For Your Genes)

- Vitamin D3 — increase dose ~25–50% above standard and take with a fat-containing meal (ABCB1).
- CoQ10 — prefer ubiquinol or liposomal form, 100–200 mg with meals (ABCB1).
- Omega-3 (EPA/DHA) — higher-end dosing with food for reliable absorption (ABCB1).

What to Avoid or Watch

- Avoid megadose antioxidant stacks — your GSTM1 null genotype slows clearance and can lead to accumulation.
- Add herbal supplements one at a time, starting at half doses (UGT1A1); watch for unusual fatigue or GI symptoms.
- If ever prescribed a statin, flag your SLCO1B1 variant and monitor muscle symptoms closely.

Save Money, Get Results

- Stop paying for standard-dose fat-soluble vitamins your body can't fully absorb — switch forms instead of doubling bottles.
- Bring the full nutrient-drug interaction table to your pharmacist for a free interaction review.
- Reassess your stack every 6 months against this report as products change.

Laboratory: Gene Matrix LLC · 1375 W Fulton St STE 545, Chicago, IL 60607 · CLIA ID: 14D2276402 · NPI: 1225729312 · (847) 302-9668 · support@genematrix.io · Mon–Fri 8AM–5PM CT. Testing performed in a CLIA-certified, CAP-accredited laboratory using next-generation sequencing. Analytical accuracy 99.9%. All findings reviewed by board-certified geneticists.
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