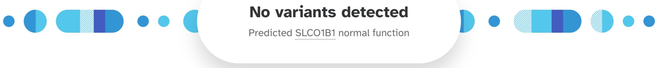
SLCO1B1 Drug Transport

The SLCO1B1 protein helps transport some medications from the blood into the liver, where they are processed for removal from the body. Specific DNA variants can affect how well this transporter protein works. Do not use this report to start, stop, or change any course of treatment. Medications should always be taken as directed.

Overview | Scientific Details | Frequently Asked Questions

Jamie, you do not have the variant we tested. This result is associated with normal function of the SLCO1B1 transporter protein.

Keep in mind you may still have other DNA variants not tested that could alter the function of your SLCO1B1 transporter protein and affect how you process certain medications.



VARIANT(S) DETECTED	OVERALL FUNCTIONAL EFFECT
No variants detected	Normal protein function

Predicted SLCO1B1 normal function

People who are predicted to have SLCO1B1 normal function are likely to have fully functional SLCO1B1 transporters. The SLCO1B1 transporter protein moves certain medications from the blood into the liver for processing and removal.

Keep in mind that people with predicted normal function of this protein may still have DNA variants in the SLCO1B1 gene or in other genes that could influence how the body processes certain medications.

SLCO1B1 Function

Test Limitations

Does **not** provide information on associations between specific DNA variants and any specific medications.

Does **not** account for lifestyle or other health factors that may affect an individual's ability to process medications.

Does **not** include all possible DNA variants in the SLCO1B1 gene or in other genes that may affect how your body processes medications.

Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

Share a summary of your Pharmacogenetics reports with a healthcare professional.

Please talk to a healthcare professional if you are interested in learning more about how DNA variants may impact processing of some medications, or if you have concerns about your results. Your healthcare provider could consider both genetic and non-genetic factors when choosing an appropriate course of treatment.

Do not use this report to start, stop, or change any course of treatment. Medications should always be taken as directed.

Print summary

How To Use This Test

This test does not diagnose any health conditions, determine drug response, provide medical advice, or determine whether a medication is indicated for you.

Do not use this result to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes can lead to harmful side effects or reduce intended benefits of the medication.

Review the Pharmacogenetics tutorial

See Scientific Details for complete Indications for Use statement and full list of Warnings and Limitations

See Frequently Asked Questions

Intended Uses

- Tests for one DNA variant in the SLCO1B1 gene: c.521T>C (found in the *5, *15, and *17 haplotypes). This variant is associated with altered SLCO1B1 transporter protein function.
- Provides information about how this specific DNA variant may affect the function of the SLCO1B1 transporter protein.

Limitations

- Does **not** test for all possible DNA variants in the SLCO1B1 gene that may affect SLCO1B1 transporter protein function. Having a variant not included in this test may change a person's predicted SLCO1B1 transporter protein function.
- Does **not** test for DNA variants in other genes that may affect other proteins involved in the processing of medications.
- Does **not** provide information on associations between specific DNA variants and any specific medications.
- Does **not** account for lifestyle or other health factors that may affect an individual's ability to process medications.
- Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

Important Ethnicities

- The DNA variant included in this test is found in many ethnicities. See Scientific Details for more information.

Both genetic and non-genetic factors influence how your body processes medications.

Healthcare professionals could consider these factors and more when choosing an appropriate course of treatment.

- Drug-drug interactions
- Other DNA variants
- Other health conditions
- Following medication instructions
- Body weight
- Age

Consider sharing this result with a healthcare professional.

Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

Please talk to a healthcare professional if you are interested in learning more about how DNA variants may impact medication processing, or if you have concerns about your results.

Print summary

See our Frequently Asked Questions for more information.

FAQs

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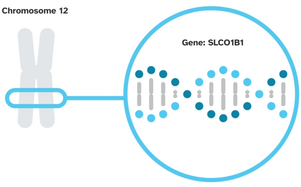
Specific variants in the SLCO1B1 gene can alter the body's ability to process certain medications.

SLCO1B1

The SLCO1B1 gene contains instructions for making the SLCO1B1 protein, also known as the OATP1B1 protein. This protein is found in the liver and acts as a transporter that moves certain medications from the blood into the liver so that they can be removed from the body. Specific DNA variants can lead to reduced transport function of the SLCO1B1 protein, which can influence the body's ability to process some medications. Keep in mind that other factors besides your genetics can also affect how your body processes medications.



You do not have the genetic variant we tested.

People with this result are predicted to have **SLCO1B1 normal function**.

Variants Detected | View All Tested Markers

Marker Tested	Your Genotype*			Additional Information
c.521T>C **Gene:** SLCO1B1 **Marker:** rs4149056	**T** Typical copy from one of your parents		**T** Typical copy from your other parent	Biological explanation Typical vs. variant DNA sequence(s) Percent of 23andMe customers with variant References [2]

* The percent of 23andMe customers with a variant may not be representative of the general population.

This test cannot distinguish which copy you received from which parent. This test also cannot determine whether multiple variants, if detected, were inherited from only one parent or from both parents. This may impact how these variants are passed down.

23andMe always reports genotypes based on the 'positive' strand of the human genome reference sequence (build 37). Other sources sometimes report genotypes using the opposite strand.

Test Interpretation

DNA variants in the SLCO1B1 gene can affect the function of the SLCO1B1 transporter protein. This altered protein function can influence the body's ability to move or transport certain medications into the liver. However, the transport of most medications is not affected by variants in the SLCO1B1 gene. Since many other genetic as well as non-genetic factors influence how the body processes medications, having a variant detected may have no noticeable effects on how medications are processed. Keep in mind that our reports do not provide information about individual response or reaction to any particular medications.

The predicted protein functions listed in the table are based on the standardized terms proposed by Caudle et al. (2017).

Do not use this information to start, stop, or change any course of treatment. Medications should always be taken as directed. Making changes on your own can lead to side effects or possible serious events such as a heart attack, or can reduce intended benefits of the medication.

Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

References [1]

SLCO1B1 c.521T>C is a decreased-function variant. The *1 (normal function) genotype is assigned based on the absence of the c.521T>C variant included in this test. People with predicted normal SLCO1B1 transporter function may still have a variant that is not included in this test, which could affect their SLCO1B1 transporter function or the function of other proteins important for drug processing.

Predicted SLCO1B1 function	Genotype information
SLCO1B1 normal function	No variants detected. This is designated as the *1/*1 genotype.
SLCO1B1 decreased function	One decreased-function variant (e.g., one copy of c.521T>C)
SLCO1B1 poor function	Two decreased-function variants (e.g., two copies of c.521T>C)

Test Details

Indications for Use

The 23andMe Personal Genome Service (PGS) is a qualitative genotyping assessment system applied to genomic DNA isolated from human saliva to simultaneously detect, report, and interpret genetic variants in a broad multigene test. The assessment system is intended to enable users to access information about their genetics that could aid discussions with a healthcare professional.

The 23andMe Personal Genome Service Pharmacogenetics Report for SLCO1B1 is indicated for reporting of the c.521T>C variant in the SLCO1B1 gene. This report is for over-the-counter use by adults over the age of 18, and provides genetic information to inform discussions with a healthcare professional about processing of therapeutics. This report describes if a person has a SLCO1B1 variant associated with processing of some therapeutics, but does not describe if a person will or will not respond to a particular therapeutic, and does not describe the association between the detected variant and any specific therapeutic. This test is not a substitute for visits to a healthcare professional. The information provided by this report should not be used to start, stop, or change any course of treatment.

Special Considerations

- There are currently no published guidelines recommending SLCO1B1 genetic testing prior to prescribing a medication. However, several clinical organizations support continued efforts to incorporate pharmacogenetic information into clinical decision making.
- Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

Test Performance Summary

Clinical Performance [2]

The SLCO1B1 c.521T>C variant included in this test represents the most common and best studied SLCO1B1 variation that results in reduced SLCO1B1 transport function. There are other rare SLCO1B1 variants with possible decreased or increased function that are not included in this test.

Analytical Performance

Accuracy was determined by comparing results from this test with results from sequencing. Greater than 99% of test results were correct. While unlikely, this test may provide false positive or false negative results. For more details on the analytical performance of this test, refer to the package insert.

Warnings and Limitations

- This test does not describe any specific associations between the detected variant and any specific therapeutics.
- This test does not cover all variants in the SLCO1B1 gene that could influence drug processing.*
- This test does not include variants in other genes that could influence drug processing.
- This report does not diagnose any health conditions, determine drug response, provide medical advice, or determine whether a medication is indicated for you.
- Results from this test should not be used to make medical decisions. Results should be confirmed by an independent genetic test prescribed by your own healthcare provider before taking any medical action.

See the Package Insert for more details on use and performance of this test.

* Variants not included in this test may be rare, may not be available on our genotyping platform, or may not pass our testing standards.

References

1. Caudle KE et al. (2017). "Standardizing terms for clinical pharmacogenetic test results: consensus terms from the Clinical Pharmacogenetics Implementation Consortium (CPIC)." Genet Med. 19(2):215-223.
2. Whirl-Carrillo M et al. (2012). "Pharmacogenomics knowledge for personalized medicine." Clin Pharmacol Ther. 92(4):414-7.

Change Log

Your report may occasionally be updated based on new information. This Change Log describes updates and revisions to this report.

Date	Change
March 2, 2020	SLCO1B1 Drug Transport report created.

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Overview Scientific Details Frequently Asked Questions

SLCO1B1 Drug Transport

- What does this test do?
- What does this test **not** do?
- What is pharmacogenetics?
- What are the advantages of sharing my results with a healthcare professional?
- What are some non-genetic factors that can affect how the body processes medications?
- Why doesn't this report include examples of medications processed by SLCO1B1?
- My genetic profile says that I am predicted to have **SLCO1B1 normal function**. What does this mean?

Have more questions? **Check out our Customer Care Help Center.**