

FOR CLINICIANS

# Picture PGx Information Sheet

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**Who is Picture Genetics?**

Picture Genetics puts patients first by providing at-home, clinical-grade genetic testing products paired with certified genetic counselor guidance. Our test results are designed to be straightforward and clinically actionable. Analysis for Picture Genetics tests is performed at Fulgent Genetics, a CLIA-certified and CAP-accredited diagnostic laboratory working with physicians from more than 700 institutions around the world.

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**What is the Picture PGx test?**

Picture PGx is a physician-backed, patient-oriented, proactive genetic test that assesses the body's response to common medications in major drug categories including blood thinners, antibiotics and antivirals, chemotherapies, antidepressants, and others. Specifically, Picture PGx results can indicate how your patient's metabolism is likely to process these drugs (and therefore how effective they may be), as well as whether they may be at risk for an adverse drug reaction (ADR). Picture PGx is unique in that it can be easily ordered and completed from home, but still includes physician involvement from an independent physician network (PWNHealth) and genetic counseling support for your patient.

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**Who should order this test?**

Picture PGx is for adults who want to understand how their body responds to specific medications and whether they have a risk of experiencing an adverse drug reaction (ADR).

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**What are the benefits this test can provide?**

By gaining genetic insight into how one metabolizes certain drugs, you can reduce the risk of ADRs as well as the time spent in the "trial and error" phase of any new drug prescription.

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**Can insurance help pay for this test?**

Picture Genetics currently does not support insurance payments for our tests.

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## A snapshot of test specifications

**Coverage** 99.9% @50x  
**Turnaround Time** 3-5 weeks  
**Specimen Type** Saliva  
**Genes Tested** 24  
**Analysis** Targeted variant analysis

## Reporting

Only variants related to actionable gene-drug interactions included in clinical guidelines are reported.

## Detection rate

99%

## Test methods

### Next generation sequencing and deletion/duplication analysis

Sequencing reads the DNA code of the selected genes, one base at a time, to determine an individual's sequence. The sequence is then compared to a reference DNA sample to detect any variants found within the patient's DNA. Next generation sequencing (NGS) is used to analyze exons in multiple genes simultaneously. Picture Genetics uses a sophisticated method that detects sequence changes and deletions/duplications (del/dups) via NGS.

## Test limitations

All laboratory tests have limitations. Positive results do not imply that there are no other contributors, genetic or otherwise, to this individual's phenotype, and negative results do not rule out a genetic cause for the indication for testing. This assay is designed and validated for detection of germline variants only. It is not designed or validated for the detection of low-level mosaicism or somatic mutations. This assay will not detect certain types of genomic aberrations such as translocations, inversions, or repeat expansions (eg. trinucleotide or hexanucleotide repeat expansion). Analysis and reporting is limited to the diplotypes/markers explicitly listed on this report. This test cannot rule out the possibility that the tested individual has a rare or uncharacterized phenotype for genes on this panel.

If you have questions, feel free to call or email us.

PICTURE PGX

# Genes Tested

Gene	Reportable Variants
<i>ABCG2</i>	rs2231142
<i>BCHE</i>	rs1799807
<i>CACNA1S</i>	rs1800559, rs772226819
<i>CYP2B6</i>	*1, *2, *4,*5,*6,*7,*8,*9,*13, *14, *16,*18,*22
<i>CYP2C9</i>	*1,*2,*3,*5,*6,*8,*11,*12,*13,*15
<i>CYP2C18</i> CYP2C Cluster rs12777823	rs12777823
<i>CYP2C19</i>	*1,*2,*3,*4,*5,*6,*7,*8,*9,*10,*17,*35
<i>CYP2D6</i>	*1, *2, *3, *4, *5, *6, *7, *8, *9, *10, *11, *12, *14, *15, *17, *19, *20, *21, *29, *31, *35, *36, *40, *41, *42, *45, *46, *49, *56, *59
<i>CYP3A4</i>	*1,*20,*22
<i>CYP3A5</i>	*1,*3,*6,*7
<i>CYP4F2</i>	rs2108622
<i>DPYD</i>	*1,*2A,*13, [c.1129-5923C>G, c.1236G>A (HapB3)], c.557A>G, c.868A>G, c.2279C>T, c.295_298delTCAT (*7), c.703C>T (*8), c.1314T>G, c.1774C>T, c.2639G>T
<i>G6PD</i>	rs5030868, rs1050828, rs78478128, rs137852342, rs137852340, rs137852327, rs72554664, rs137852339, rs5030869, rs72554665, rs137852318, rs5030872, rs137852313
<i>HLA-A</i>	HLA-A*31:01
<i>HLA-B</i>	HLA-B*15:02, HLA-B*57:01, HLA-B*58:01
<i>IFNL4</i>	rs12979860
<i>MT-RNR1</i>	rs267606617, rs267606618, rs267606619

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# Genes Tested

Gene	Reportable Variants
<i>NAT2</i>	*4, *5, *6, *7, *14
<i>NUDT15</i>	*1,*2,*3,*4,*6,*9,*14
<i>RYR1</i>	rs118192177, rs118192176, rs193922762, rs118192175, rs193922770, rs118192124, rs193922832, rs193922809, rs193922802, rs193922816, rs112563513, rs193922748, rs118192161, rs121918595, rs121918596, rs28933397, rs193922753, rs118192178, rs28933396, rs121918593, rs193922843, rs1801086, rs144336148, rs118192162, rs193922768, rs193922807, rs118192116, rs193922747, rs118192122, rs121918592, rs118192168, rs121918594, rs118192172, rs118192170, rs111888148, rs193922878, rs193922876, rs193922764, rs193922772, rs118192167, rs193922818, rs193922803, rs63749869, rs118192163
<i>SLCO1B1</i>	rs4149056
<i>TPMT</i>	*1,*2,*3A,*3B,*3C,*4,*11,*29,*42
<i>UGT1A1</i>	*6, *80
<i>VKORC1</i>	rs9923231, rs72547529, rs61742245