

## Glucose-6-Phosphate Dehydrogenase (G6PD) Full Gene Sequencing, Varies

**Test ID:** G6PDZ

**Explanation:** On the effective date, the Test Algorithm will be updated to include a reflex test when necessary. Additionally, the Specimen Required and Days Performed sections will be updated as indicated below.

Current Reflex Tests
None

New Reflex Tests			
Test ID	Reporting Name	Available Separately	Always Performed
MATCC	Maternal Cell Contamination, B	Yes	No

Current Algorithm
<p>The following are available:</p> <p><a href="#">-Glucose-6-Phosphate Dehydrogenase (G6PD) Deficiency Diagnostic Algorithm</a></p> <p><a href="#">-Glucose-6-Phosphate Dehydrogenase (G6PD) Genotyping Interpretive Algorithm</a></p>

New Algorithm
<p>For cord blood specimens that have an accompanying maternal blood specimen, maternal cell contamination studies will be performed at an additional charge.</p> <p>The following are available:</p> <p><a href="#">-Glucose-6-Phosphate Dehydrogenase (G6PD) Deficiency Diagnostic Algorithm</a></p> <p><a href="#">-Glucose-6-Phosphate Dehydrogenase (G6PD) Genotyping Interpretive Algorithm</a></p>

Current Specimen Required
<p><b>Submit only 1 of the following specimens:</b></p> <p><b>Specimen Type:</b> Whole blood</p> <p><b>Container/Tube:</b></p> <p><b>Preferred:</b> Lavender top (EDTA) or yellow top (ACD)</p> <p><b>Specimen Volume:</b> 3 mL</p> <p><b>Collection Instructions:</b></p> <ol style="list-style-type: none"> <li>1. Invert several times to mix blood.</li> <li>2. Send whole blood specimen in original tube. <b>Do not</b> aliquot.</li> </ol>

New Specimen Required
<p><b>Patient Preparation:</b> A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710.</p> <p><b>Submit only 1 of the following specimens:</b></p> <p><b>Specimen Type:</b> Whole blood</p> <p><b>Container/Tube:</b> Lavender top (EDTA) or yellow top (ACD)</p> <p><b>Specimen Volume:</b> 3 mL</p> <p><b>Collection Instructions:</b></p> <ol style="list-style-type: none"> <li>1. Invert several times to mix blood.</li> </ol>

**Specimen Stability Information:** Ambient (preferred) 9 days/Refrigerated 30 days

**Specimen Type:** Saliva

**Patient Preparation:** Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection.

**Supplies:** Saliva Swab Collection Kit (T786)

**Specimen Volume:** 1 Swab

**Collection Instructions:** Collect and send specimen per kit instructions.

**Specimen Stability Information:** Ambient 30 days

2. Send whole blood specimen in original tube. **Do not aliquot.**

**Specimen Stability Information:** Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days

**Additional Information:**

1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed.

2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

**Specimen Type:** Cord blood

**Container/Tube:** Lavender top (EDTA) or yellow top (ACD)

**Specimen Volume:** 3 mL

**Collection Instructions:**

1. Invert several times to mix blood.

2. Send cord blood specimen in original tube. **Do not aliquot.**

**Specimen Stability Information:** Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days

**Additional Information:**

1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed.

2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

3. While a properly collected cord blood sample may not be at risk for maternal cell contamination, unanticipated complications may occur during collection. Therefore, maternal cell contamination studies are recommended to ensure the test results reflect that of the patient tested and are available at an additional charge. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

**Specimen Type:** Saliva

**Patient Preparation:** Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection.

**Supplies:** Saliva Swab Collection Kit (T786)

**Specimen Volume:** 1 Swab

**Collection Instructions:** Collect and send specimen per kit instructions.

**Specimen Stability Information:** Ambient (preferred) 30 days/Refrigerated 30 days

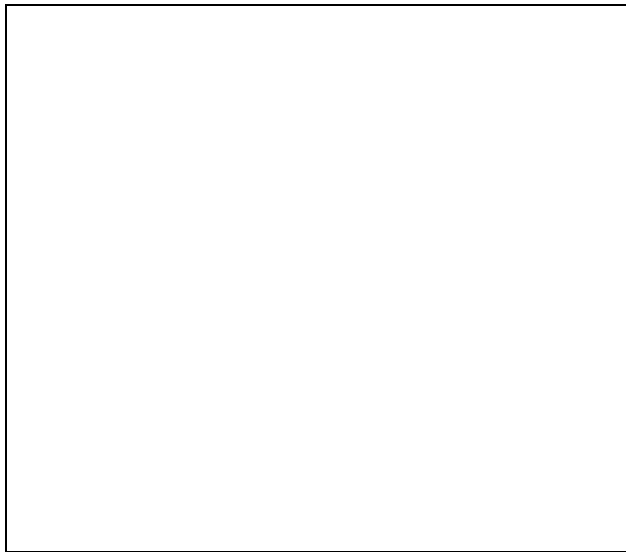
**Additional Information:** Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

**Specimen Type:** Extracted DNA

**Container/Tube:**

**Preferred:** Screw Cap Micro Tube, 2mL with skirted conical base

**Acceptable:** Matrix tube, 1mL

**Collection Instructions:**

1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL.
2. Include concentration and volume on tube.

**Specimen Stability Information:** Frozen (preferred) 1 year/Ambient/Refrigerated

**Additional Information:** DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

**Current Days Performed**

Monday, Wednesday

**New Days Performed**

Varies

**Questions**

Contact Michelle Raths, Laboratory Resource Coordinator at 800-533-1710.