ARUP LABORATORIES | *A nonprofit enterprise of the University of Utah and its Department of Pathology*

Effective Date: October 20, 2025

TEST CHANGE

Glucose-6-Phosphate Dehydrogenase

0080135, G6PD

Specimen Requirements:	
Patient Preparation:	
Collect:	Yellow (ACD solution A). Also acceptable: Green (sodium or lithium heparin), lavender (K2EDTA or K3EDTA), or pink (K2EDTA). Enzyme most stable in acid citrate dextrose (ACD).
Specimen Preparation:	Do not freeze. Transport 3 mL whole blood. (Min: 1.5 mL heparin and~~or~~ EDTA collection tubes; Min: 0.5 mL pediatric collection tubes).
Transport Temperature:	Refrigerated~~.~~
Unacceptable Conditions:	Clotted, frozen, or hemolyzed specimens.
Remarks:	Pediatric minimum 0.5 mL if collected and transported in a pediatric collection K2EDTA tube. ACD collection tubes should be filled to maximum collectible volume and are not recommended for pediatric specimen collection or preservation. ARUP G6PD results are normalized to Hemoglobin. Reporting units are U/g Hb. Alternative methods may normalize G6PD results to red blood cells and use different reporting units.
Stability:	Room Temperature~~Ambient~~: 8 hours; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Quantitative Enzymatic Assay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	Patients who have recently received transfusions have normal donor cells that may mask G-6-PD deficient erythrocytes.
CPT Codes:	82955
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
	World Health Organization guidance on classification

Inserted Cells

of G6PD activity is as follows:
Males: G6PD activity less than 30% of the normal median are regarded as G6PD deficient. Males with G6PD activity of 30% or more of the normal median can be regarded as G6PD normal.
Females: G6PD activity less than 30% of the normal median are regarded as G6PD deficient. Females with G6PD activity of 80% or more of the normal median can be regarded as G6PD normal. G6PD activity between 30% and 80% of the normal median are regarded as intermediate activity.
Cutoffs and results are specific to this G6PD assay and configuration and cannot be used interchangeably across different assays, parameters, and/or instrument configurations.
Reference: Guide to G6PD deficiency rapid diagnostic testing to support P. vivax radical cure. Geneva: World Health Organization; 2018. ISBN 978-92-4-151428-6

Percent of Normal Activity (U/g Hb)

Age	100%	80%	30%
<8 days	19.7	15.8	5.9
8 - 30 days	18.2	14.6	15.5
1 - 6 months	16.1	12.9	4.8
7 - 12 months	13.8	11.0	4.1
1 - 17 years	12.9	10.3	3.9
= 18 years	12.7	10.2	3.8

Percentage of normal activity cutoffs to G6PD enzyme activity. 100% for males and females is defined as the 50th percentile of non-affected males.

Reference Interval:

~~Effective November 17, 2014~~
~~9.9-16.6 U/g Hb~~

Deleted Cells