
Reporting Title: Porphyrin Evaluation, RBC**Performing Location:** Rochester**Ordering Guidance:**

This is the preferred test for assessment for protoporphyria. The preferred test for assessing lead toxicity in children is blood lead. For more information see PBDV / Lead, Venous, with Demographics, Blood or PBDC / Lead, Capillary, with Demographics, Blood. The preferred screening test for suspicion of a hepatic porphyria is urine porphyrins. For more information see PQNRU / Porphyrins, Quantitative, Random, Urine.

Necessary Information:

1. Volume of packed cells and total volume of specimen (red cells + saline) are required and must be sent with specimen.
2. Include a list of medications the patient is currently taking.

Specimen Requirements:

All porphyrin tests on erythrocytes can be performed on 1 draw tube.

Patient Preparation: Patient should abstain from alcohol for 24 hours prior to specimen collection.

Collection Container/Tube:

Preferred: Green top (sodium heparin)

Acceptable: Dark blue top (metal free heparin), green top (lithium heparin), or lavender top (EDTA)

Submission Container/Tube: Plastic vial

Specimen Volume: Washed erythrocyte suspension

Collection Instructions: Collect and process whole blood specimen as follows:

1. Transfer entire specimen to a 12-mL graduated centrifuge tube.
2. Centrifuge specimen at 4 degrees C for 10 minutes at 2000 rpm.
3. Record volume of packed cells and the total volume of the specimen.
4. Discard supernatant plasma.
5. Wash packed erythrocytes 2 times by resuspension of at least an equal amount of cold 0.9% saline, mix, and centrifuge for 5 minutes at 2000 rpm, discarding supernatant after each washing.
6. Resuspend packed cells to the original total volume with 0.9% saline. Invert specimen gently to mix.
7. Transfer to a plastic tube and freeze.

Specimen Minimum Volume:

1 mL

Forms:

If not ordering electronically, complete, print, and send a Biochemical Genetics Test Request (T798) with the specimen.

Specimen Type	Temperature	Time	Special Container
Washed RBC	Frozen (preferred)	14 days	
	Refrigerated	14 days	

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
PEWE	BG569	Total cell suspension	Plain Text	Yes
PEWE	BG570	Packed cell volume	Plain Text	Yes
PPFWE	BG571	Total cell suspension	Plain Text	No
PPFWE	BG572	Packed cell volume	Plain Text	No

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
31942	Total Porphyrins, RBC	Alphanumeric	mcg/dL	2814-2
31943	Interpretation	Alphanumeric		59462-2
BG569	Total cell suspension	Alphanumeric		94496-7
BG570	Packed cell volume	Alphanumeric		94497-5

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

84311-Spectrophotometry, analyte not elsewhere specified
82542-Chromatography (if appropriate)

Reflex Tests:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
PPFWE	Protoporphyrins, Fractionation, RBC			No	Yes

Result Codes for Reflex Tests:

Test ID	Result ID	Reporting Name	Type	Unit	LOINC®
PPFWE	31932	Zinc-Complexed Protoporphyrin	Alphanumeric	mcg/dL	2895-1
PPFWE	31933	Free Protoporphyrin	Alphanumeric	mcg/dL	94491-8
PPFWE	INTP6	Interpretation	Alphanumeric		59462-2
PPFWE	BG571	Total cell suspension	Alphanumeric		94496-7
PPFWE	BG572	Packed cell volume	Alphanumeric		94497-5

Reference Values:

PORPHYRINS, TOTAL, RBC
<80 mcg/dL