

ProtoFluor® Z



ProtoFluor Z is a hematofluorometer dedicated to the measurement of zinc protoporphyrin in whole blood. Elevated zinc protoporphyrin (ZPP) levels are useful as an early indicator of iron deficiency. The ProtoFluor Z instrument is easy to use. The operator simply inserts the sample holder containing the sample into the instrument, then presses the measure button. The ZPP value is displayed on the LED and can be reported in mmol ZPP/mol Heme (ratio of ZPP to heme), in mg/dL whole blood at a 35% hematocrit for adults, or mg/dL whole blood at a 42% hematocrit for children. The ProtoFluor method is inexpensive, requires only one drop of whole blood, and takes only seconds to perform, making it an ideal screening test.

ProtoFluor Z Analyzer

Cat. No.	Item
2005	ProtoFluor Z, 110V
2006	ProtoFluor Z, 220V



ProtoFluor Reagents

The ProtoFluor Reagent is designed to stabilize hemoglobin so that it has the same spectral characteristics as fully oxygenated hemoglobin. ProtoFluor Calibrators are stable solutions of zinc protoporphyrin and heme used in calibration. Calibration requires only a few seconds and adjustments in calibrations are accomplished by simultaneously pressing two control buttons on the front panel of the instrument. Coverslips are specifically manufactured and processed from low fluorescing glass.

ProtoFluor Reagent Kits

Cat. No.	Item
2000	ProtoFluor Reagent Kit 2 x 15 mL ProtoFluor Reagent 2 x 125 ProtoFluor Coverslips 1 x 2.5 mL ProtoFluor Calibrator-Low 1 x 2.5 mL ProtoFluor Calibrator-High
2002	ProtoFluor Reagent, 2 x 15 mL
2010	ProtoFluor Calibrator-Low, 5 x 2.5 mL
2011	ProtoFluor Calibrator-High, 5 x 2.5 mL
2001	ProtoFluor Coverslips, 10 x 125

ProtoFluor® Z

ProtoFluor Z Specifications

Units of Measurement: mmol ZPP/mole Heme (ratio of ZPP to Heme in the red blood cell) or mg ZPP/dL Whole Blood (concentration)

Measurement Range: 0 to 600 mmol ZPP/mol Heme, 0 to 270 mg/dL

Input Power: 110V, 50/60 Hz; 220V, 50/60 Hz

Dimensions: 7 1/2" H x 11 1/2" W x 1 1/4" D
(19 x 29.5 x 28.6 cm)

Weight: 12.6 lb (5.7 kg)

Environment: 15 to 30°C (59 to 86°F)

Versatility in Reporting Units

By changing the position of the mode switch on the back of the instrument, ProtoFluor Z can report in S.I. units, $\mu\text{mol ZPP/mol Heme}$ (ratio of ZPP to heme), in $\mu\text{g/dL whole blood at a 35 hematocrit}$ or $\mu\text{g/dL whole blood at 42 hematocrit}$.

By nature of the hematofluorometer design, the signal measured by the detector actually reveals the ratio of ZPP fluorescence to heme absorption. When the blood sample is excited with light at 415 nm, hemoglobin absorbs the light and the ZPP fluoresces.

ProtoFluor Z takes advantage of these natural measurements to provide a direct ratio readout. The measurement and expression of results as $\mu\text{mol ZPP/mol Heme}$ improves the quality of results, partly by eliminating the assumed hematocrit. However, many physicians and laboratorians have traditionally used methods which provide results in mg/dL units and prefer to continue using these units. The instrument gives you this option.



ProtoFluor Z Accessories and Services

Cat. No.	Item
2007	ProtoFluor Sample Holder
1147	Comprehensive Replacement Agreement for PFZ
9147	Service Manual for ProtoFluor Z