Lab Dept: Chemistry

Test Name: PROINSULIN, PLASMA

General Information

Lab Order Codes:	PROIN
Synonyms:	Insulinoma
CPT Codes:	84206 - Proinsulin
Test Includes:	Proinsulin level reported in pmol/L.

Logistics

Test Indications:	As part of the diagnostic workup of suspected insulinoma, PC1/3 deficiency, or with suspected proinsulin mutations.
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: 80908/PINS)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	2 – 7 days, performed Monday and Thursday
Special Instructions:	See special container, collection procedure and patient preparation.

Specimen

Specimen Type:	Blood
Container:	Ice cooled Lavender top (EDTA) tube
Draw Volume:	4.5 mL (Minimum: 2 mL) blood
Processed Volume:	1.5 mL (Minimum: 0.65 mL) plasma
Collection:	Routine venipuncture. Draw blood into an ice cooled lavender top tube from a fasting patient. After draw, chill the whole blood on ice for at least 10 minutes before processing.

Special Processing:	Lab Staff: Centrifuge specimen after the specimen has been on ice for at least 10 minutes in a refrigerated centrifuge. Remove plasma into a screw-capped plastic vial. Store and ship and frozen temperatures.
Patient Preparation:	Fasting specimen preferred
Sample Rejection:	Marked hemolysis; marked lipemia; warm specimens <2 hours; mislabeled or unlabeled specimens

Interpretive

Reference Range:	3 – 20 pmol/L
Critical Values:	N/A
Limitations:	To avoid misdiagnosis, all proinsulin measurements used in the diagnostic workup of patients with hypoglycemia must be interpreted in the context of coexisting illnesses, the blood glucose concentration at the time of sampling, and other test results (ie, insulin, C-peptide, beta-hydroxybutyrate, and sulfonylurea drug screen). For example, patients with chronic renal failure or type 2 diabetes mellitus can have increased proinsulin, C-peptide and insulin values, but usually without suppressed (<45 g/dL) blood glucose.
Methodology:	Immunochemiluminescent Assay
References:	Mayo Medical Laboratories September 2012