
Lab Dept: Chemistry

Test Name: INSULIN LEVEL

General Information

Lab Order Codes: INS

Synonyms: N/A

CPT Codes: 83525 – Insulin; total

Test Includes: Insulin level reported in uU/mL.

Logistics

Test Indications: N/A

Lab Testing Sections: Chemistry (Performed on Minneapolis Campus)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 6 hours

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: SST (Marble, gold or red top tube)
Alternate tube: Lavender top (EDTA), Green (NaHep)

Draw Volume: 1.2 mL (Minimum: 0.5 mL) blood

Processed Volume: 0.4 mL (Minimum: 0.15 mL) serum/EDTA plasma

Note: Minimum does not permit repeat analysis.

Collection: Routine blood collection

Special Processing: Lab Staff: Centrifuge specimen within 1 hour of draw, remove serum/plasma aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimens; gross hemolysis (≥ 500 mg/dL)

Interpretive

Reference Range:	Age	Range (uU/mL)
	0 – 1 years:	1 – 23.5
	1 – 6 years:	1 - 40
	6 – 19 years:	2 - 40
	>19 years:	2 - 25

Critical Values: N/A

Limitations: Specimens from patients treated with bovine or porcine insulin may contain antibodies which could show interference with this assay.

Insulin levels may be measured lower in patients with insulin autoimmune syndrome or familial pro-insulinemia.

Methodology: Chemiluminescent Microparticle Immunoassay

References: Abbott Architect Insulin package insert, Revised September 2012, Ref F5-Y302-2/R02, Abbott Laboratories, Abbott Park, IL 60064 USA

[Mayo Medical Laboratories](#) Reference Ranges

CALIPER Study – Reference ranges

Updates: 5/17/2010: Method change and reference range changes. Specimen volumes adjusted for new method. Fasting specimen not required.
1/7/2012: Units previously listed as uU/mL. Updated reference ranges.
8/22/2016: Tube update
4/24/2018: Testing moved from Esoterix to Children's of MN Laboratory, method, volume, reference range updates