
Lab Dept: Chemistry

Test Name: GASTRIN, SERUM

General Information

Lab Order Codes: GAS

Synonyms: N/A

CPT Codes: 82941 - Gastrin

Test Includes: Gastrin level reported in pg/mL.

Logistics

Test Indications: Diagnosis of gastrinoma and Zollinger-Ellison syndrome (triad of gastrinoma, gastric acid hypersecretion, and ulcers); serum gastrin is the best single laboratory test for gastrinoma.

Investigation of patients with achlorhydria or pernicious anemia.

Lab Testing Sections: Chemistry – Sendouts

Referred to: Mayo Medical Laboratories (MML Test: GAST)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, test set Monday - Saturday

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type: Blood

Container: SST (Gold, marble or red) tube

Draw Volume: 6 mL (Minimum: 1.5 mL) blood

Processed Volume: 2 mL (Minimum: 0.5 mL) serum

Collection: Routine venipuncture

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| Special Processing: | Lab Staff: Centrifuge specimen within 1 hour of draw, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly. |
| Patient Preparation: | The patient should be fasting overnight, preferably 8 hours (4 hours is the minimal fasting interval). Protein meal can cause a marked increase in serum gastrin. No recent radioactive isotopes. Gastrin may be increased following gastroscopy. |
| Sample Rejection: | Gross hemolysis; warm specimens; mislabeled or unlabeled specimens |

Interpretive

Reference Range: <100 pg/mL

Note: There is no evidence that fasting serum gastrin levels differ between adults and children. Although 8 hour fasts are difficult or impossible to enforce in small children, serum gastrin levels after shorter fasting periods (3-8 hours) may be 50-60% higher than the 8 hour fasting value.

Critical Values: N/A

Limitations: Isolated serum gastrin levels can only be interpreted in fasting patients, non-fasting specimens are uninterpretable.

Drugs which interfere with gastric acid secretion, in particular proton pump inhibitors (e.g., omeprazole) should be discontinued, if feasible, for at least one week before serum gastrin measurement.

Hypergastrinemia may be observed in improperly prepared patients (e.g., after gastroscopy, non-fasting, or diabetic patients taking insulin), in some patients with pheochromocytoma, or in those with cancer of the colon, pancreas, breast or lung. Renal failure prolongs the serum half-life of gastrin and is associated with increased serum gastrin levels.

Methodology: Automated Chemiluninescent Immunometric Assay

References: [Mayo Medical Laboratories](#) (December 2017)

Updates: 3/2/2004: Test moved from Esoterix, Inc. to Mayo Medical Laboratories.

8/31/2004: MML has changed methodology on this test from RIA to Automated Chemiluminescent Immunometric Assay. Note change in reference range previously listed as ≤ 200 pg/mL. Also note fasting comment on new reference range.

12/8/2017: Updated collection container