Overview

Useful For
Detection of vasoactive intestinal polypeptide producing tumors in patients with chronic diarrheal diseases

Method Name
Radioimmunoassay (RIA)

NY State Available
Yes

Specimen

Specimen Type
Plasma EDTA

Advisory Information
This test should not be requested on patients who have recently received radioactive material.

Specimen Required
Patient Preparation: Fasting (8 hours)

Collection Container/Tube: Lavender top (EDTA)

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions: Centrifuge and freeze immediately.

Forms
If not ordering electronically, complete, print, and send an Oncology Test Request (T729) with the specimen.

Specimen Minimum Volume
0.55 mL

Reject Due To

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross lipemia</td>
<td>Reject</td>
</tr>
<tr>
<td>Gross icterus</td>
<td>OK</td>
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</table>

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
<tr>
<td>Plasma EDTA</td>
<td>Frozen</td>
<td>90 days</td>
<td></td>
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</tbody>
</table>
Test Definition: VIP
Vasoactive Intestinal Polypeptide, P

Clinical and Interpretive

Clinical Information
Vasoactive intestinal polypeptide (VIP) was originally isolated from porcine small intestine and was recognized by its potent vasodilator activity. This brain/gut hormone has widespread distribution and is present in neuronal cell bodies localized in the central nervous system, digestive, respiratory, and urogenital tracts, and exocrine, thyroid, and adrenal glands. VIP has a wide scope of biological actions. The main effects of VIP include relaxation of smooth muscle (bronchial and vascular dilation), stimulation of gastrointestinal water and electrolyte secretion, and release of pancreatic hormones.

VIP-producing tumors (VIPomas) are rare; most (90%) are located in the pancreas. Watery diarrhea, hypokalemia, and achlorhydria are key symptoms.

Reference Values
<75 pg/mL

Interpretation
Values above 75 pg/mL may indicate the presence of an enteropancreatic tumor causing hypersecretion of vasoactive intestinal polypeptide (VIP).

Values above 200 pg/mL are strongly suggestive of VIP-producing tumors (VIPoma).

VIPoma is unlikely with a 24-hour stool volume below 700 mL.

Cautions
This test should not be requested in patients who have recently received radioisotopes, therapeutically or diagnostically, because of potential assay interference. A recommended time period before collection cannot be made because it will depend on the isotope administered, the dose given and the clearance rate in the individual patient. Specimens will be screened for radioactivity prior to analysis. Radioactive samples received in the laboratory will be held and assayed after the radioactivity has sufficiently decayed. This will result in a test delay.

Clinical Reference


Performance

Method Description
Vasoactive intestinal polypeptide (VIP) in the patient sample competes with labeled ([125]I) VIP for a limited number of primary antibody binding sites during a 24-hour incubation. Antibody-bound VIP is separated from the unbound portion by a goat anti-rabbit secondary antibody. Centrifugation brings down the heavy antibody complexes while unbound antigen remains in solution and is discarded. The amount of labeled antigen bound to the antibody is
inversely proportional to the amount of VIP present in the patient sample. The (125)I signal is counted on a gamma counter and the counts per minute are used to calculate percent of maximum binding and construct a standard curve. (Unpublished Mayo method)

**PDF Report**
No

**Day(s) and Time(s) Test Performed**
Monday, Tuesday, Wednesday; 2 p.m.

**Analytic Time**
3 days

**Maximum Laboratory Time**
8 days

**Specimen Retention Time**
3 months

**Performing Laboratory Location**
Rochester

**Fees and Codes**

**Fees**
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

**Test Classification**
This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

**CPT Code Information**
84586

**LOINC® Information**

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<th>Order LOINC Value</th>
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<td>VIP</td>
<td>Vasoactive Intestinal Polypeptide,P</td>
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<td>8150</td>
<td>Vasoactive Intestinal Polypeptide,P</td>
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