# VITAMIN D, 25-HYDROXY

## General Information

**Lab Order Codes:** VDT

**Synonyms:** Vitamin D Assay; 25-Hydroxycholecalciferol; 25-OH-Vitamin D; 25-Hydroxy D2, 25-Hydroxy D3; Calcidiol

**CPT Codes:** 82306 – Calcifediol (25-OH Vitamin D-3)

**Test Includes:** Total 25-hydroxyvitamin measured in ng/mL.

## Logistics

**Test Indications:** The test is used to assess patient’s vitamin D status, evaluate hypo and hypercalcemia and to investigate the causes of osteomalacia and rickets. Also useful in monitoring vitamin D replacement therapy.

**Lab Testing Sections:** Chemistry (Performed on the Minneapolis Campus)

**Phone Numbers:**
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Performed daily

**Special Instructions:** See [Patient Preparation](#)

## Specimen

**Specimen Type:** Blood

**Container:** Preferred: SST (Gold, marble or red)  
Alternate: Green (LiHep or NaHep), Lavender (EDTA) tubes

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

**Processed Volume:** 0.5 mL (Minimum: 0.15 mL) serum/plasma

**Collection:** Routine venipuncture, capillary specimens are not recommended
**Special Processing:** Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a screw-capped plastic vial. Store at refrigerated temperatures for up to 12 days or at room temperature ≤72 hours.

**Patient Preparation:** Fasting samples are recommended, but not required

**Sample Rejection:** Specimens other than those listed above; unlabeled or mislabeled specimens; grossly hemolysis; triglycerides >500 ug/dL that cannot be cleared by ultracentrifugation

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### Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>All ages: 30 – 100 ng/mL ( Sufficiency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deficient:</td>
<td>&lt;10 ng/mL</td>
</tr>
<tr>
<td>Insufficiency:</td>
<td>10 – 30 ng/mL</td>
</tr>
<tr>
<td>Toxicity:</td>
<td>&gt;100 ng/mL</td>
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</tbody>
</table>

**Critical Values:** N/A

**Limitations:**
- Gross hemolysis falsely elevates Vitamin D.
- In patients receiving vitamin D2 supplementation, results that are subtherapeutic should be confirmed using another method, such as LC/MS, before being used for patient management.

**Methodology:** Chemiluminescent microparticle immunoassay

**References:**
- Abbott Architect Calibrator Insert Sheet (September 2016) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA
- Abbott Architect Safety Data Sheet (July 30, 2015) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064
- Abbott Alinity i 25-OH Vitamin D Reagent Kit Instructions for Use (February 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA
- Abbott Alinity i 25-OH Vitamin D Calibrator Kit Package Insert (February 2018) Abbott Park, IL, 60064, USA
Updates: 4/24/2018: Method and collection container updates
12/11/2020: Updated for method Abbott Alinity