Lab Dept: Chemistry  
Test Name: ACTH

**General Information**

Lab Order Codes: ADCT  
Synonyms: Adrenocorticotropic Hormone (ACTH), Plasma; Corticotropin; Cushing’s Disease  
CPT Codes: 82024 – Adrenocorticotropic hormone (ACTH)  
Test Includes: ACTH level reported in pg/mL.

**Logistics**

Test Indications: Useful for determining the cause of hypercortisolism and hypocortisolism states.  
Lab Testing Sections: Chemistry – St. Paul Campus  
Phone Numbers: MIN Lab: 612-813-6280  
STP Lab: 651-220-6550  
Test Availability: Daily, 24 hours  
Turnaround Time: Stat: Within 12 hours  
Routine: Performed daily  
Special Instructions: See Collection

**Specimen**

Specimen Type: Blood  
Container: Lavender top (EDTA) tube (MUST be ice cooled)  
Draw Volume: 3 mL (Minimum: 1.5 mL) blood  
Processed Volume: 1 mL (Minimum: 0.5 mL) plasma  

Note: 2 mL of plasma is the maximum amount to freeze to minimize thawing time.
**Collection:** Morning (6 am – 10 am) specimens are desirable. Draw in an ice-cooled, lavender top (EDTA) tube. Mix 8-10 times and immediately immerse tube in an ice slurry (water and ice).

**Special Processing:** Lab Staff: Centrifuge specimen in a refrigerated centrifuge. Transfer plasma aliquot sample into a screw-capped round bottom plastic vial. Store and ship at frozen (-20 degrees C) temperatures.

For STAT samples, place aliquoted sample in an ice slurry and transport immediately.

Sample stability: Sample must be stored and transported frozen.

Note: When a refrigerated centrifuge is not available, it is preferable to spin the sample immediately and cool the sample afterward.

**Patient Preparation:** None

**Sample Rejection:** Specimens other than EDTA plasma; warm specimens; mislabeled or unlabeled specimens; gross hemolysis; specimens stored in glass tubes

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**Interpretive**

**Reference Range:**

| Pediatrics: | Pediatric reference values are the same as adults, as confirmed by peer reviewed literature. |
| Adults: | 10 – 60 pg/mL (am draws) |
| No established reference values for pm draws |

**Critical Values:** N/A

**Limitations:** In very rare circumstances of the ectopic ACTH syndrome, the elevated ACTH may be biologically active but not detected by the immunometric assay.

ACTH levels should be interpreted in relationship to cortisol levels.

Hemolysis and a traumatic draw will falsely increase ACTH levels.

**Methodology:** Automated Chemiluminescent Immunometric Assay

**References:**


Siemens Immunlite ACTH Control Module Product Insert, PILACCM-23, (8/24/2009)

**Updates:**
7/21/2015: Vista update