



Laboratory Service Manual

Lab Dept: Chemistry

Test Name: ACTH

General Information

Lab Order Codes: ADCT

Synonyms: Adrenocorticotrophic Hormone (ACTH), Plasma; Corticotropin; Cushing's Disease

CPT Codes: 82024 – Adrenocorticotrophic 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:

Minneapolis: 612-813-6280

Saint Paul: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: Stat : Within 12 hours, performed daily, Saturday – Sunday (7am – 6pm)

Routine: 1 – 3 days, performed Monday – Friday (7am – 9 pm)

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



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- Processed Volume:** 1 mL (Minimum: 0.5 mL) plasma
- Note: 2 mL plasma is the maximum to freeze to minimize thawing time.
- Collection:** Morning (6 am – 10 am) specimens are desirable. Draw in an ice-cooled, lavender top (EDTA) tube.
- Special Processing:** Lab Staff: Centrifuge specimen in a refrigerated centrifuge, remove plasma aliquot as soon as possible from cells. Place plasma aliquot in a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. For STAT samples, place aliquot in an ice slurry and transport immediately.
- 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 p.m. 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 traumatic draw falsely increase ACTH levels.

Methodology:

Automated Chemiluminescent Immunometric Assay

References:

Siemens Immunlite 2000 ACTH Product Insert (7/29/2008)

Jacobs and DeMott Laboratory Test Handbook (2001), 5th Edition, Lexi-Comp, Inc.



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Updates:

8/16/2010: Minimum draw volume update.