
Lab Dept: Chemistry

Test Name: ALDOSTERONE

General Information

Lab Order Codes: ALDS

Synonyms: Aldosterone, Blood

CPT Codes: 82088 - Aldosterone

Test Includes: Aldosterone level reported in ng/dL.

Logistics

Test Indications: Investigation of primary adlosteronism (eg, adrenal adenoma/carcinoma and adrenal cortical hyperplasia) and secondary aldosteronism (renovascular disease, salt depletion, potassium loading, cardiac failure with ascites, pregnancy, Bartter syndrome).

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Clinic Laboratory (Mayo test: ALDS)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 - 5 days, testing performed Monday - Friday

Special Instructions: See [Patient Preparation](#)

Specimen

Specimen Type: Blood

Container: Preferred: Red NO GEL
Alternate: SST (Gold or marble)

Draw Volume: 3.6 mL (Minimum: 3.6 mL) blood

Processed Volume: 1.2 mL (Minimum: 1.2 mL) serum

Collection: Routine blood collection

Special Processing:

Lab Staff: Centrifuge specimen within 1 hour of collection, remove serum aliquot. Store and ship refrigerated in plastic vial. Forward promptly.

Specimen stable refrigerated (preferred) for 28 days, frozen for 30 days, ambient for 4 days.

Patient Preparation:

8 AM collection time (after patient is active for 2 hours) is recommended; preferably no later than 10 AM.

Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before testing. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone.

Sample Rejection:

Mislabeled or unlabeled specimens

Interpretive**Reference Range**

Age:	Range (ng/mL)
0 – 30 days:	17 – 154*
31 days – 11 months:	6.5 – 86*
1 – 10 years (supine):	≤40*
1 – 10 years (upright):	≤124*
≥11 years	≤21 (AM peripheral vein specimen)
*Loeulie GA, Racadot A, Vasseur P, Vandewalle B: Blood and urinary aldosterone levels in normal neonates, infants and children. <i>Pediatric</i> 1981;36:335-344	

Critical Values:

N/A

Limitations:

Late p.m. levels can be up to 30% lower than early a.m. levels. Supine values are on average 50% lower than upright collections. Sodium-deplete patients have significantly elevated serum aldosterone (SA) levels, potentially exceeding the upper limit of the salt replete upright reference range by several fold. To account for these variables, at least in part, it is recommended that PRA is measured concomitantly. In situations of physiological variability, PRA should be altered in the same direction as aldosterone.

Angiotensin converting enzyme (ACE) inhibitors have the potential to falsely elevate PRA. Therefore, in a patient treated with an ACE inhibitor, the findings of a detectable PRA level or a low SA/PRA ratio do not exclude the diagnosis of primary aldosteronism. In addition, a strong predictor for primary aldosteronism is a PRA level undetectably low in a patient taking an ACE inhibitor.

Methodology:

Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

References:

[Mayo Clinic Laboratories](#) December 2024

Updates:

12/14/2010: Reference range update. Supine references removed. Method change, previously listed as RIA.

11/13/2017: Collection container update.

8/23/2021: Moved from Esoterix to Mayo.

12/27/2024: Added specimen stability, limitations, and patient preparation. Edited minimum required volumes.