

Congenital Adrenal Hyperplasia (CAH) Pediatric
Profile 6, Comprehensive Screen

Overview

Method Name

High Pressure Liquid Chromatography/Tandem Mass Spectrometry (HPLC/MS-MS)

NY State Available

Yes

Specimen

Specimen Type

Serum Red

Specimen Required Specimen Type: Serum Container/Tube: Red Specimen Volume: 3.5 mL

Collection Instructions: Draw blood in a plain, red-top tube(s). (Serum gel tube is not acceptable.) Spin down and

separate within 45 minutes of collection and send 3.5 mL of serum frozen in plastic vial.

Specimen Minimum Volume

2 mL NOTE: Minimum volume does not allow for repeat analysis.

Reject Due To

| Gross | Reject |
|---------------|--------|
| hemolysis | |
| Gross lipemia | Reject |
| Gross icteric | Reject |
| Gel-barrier | Reject |
| tube, | |
| non-serum | |
| sample | |

Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---------------|-------------|---------|-------------------|
| Serum Red | Frozen | 90 days | |



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Clinical & Interpretive

Reference Values

Androstenedione

Units: ng/dL

 Age
 Range

 Premature (26-28w) Day 4
 63-935

 Premature (31-35w) Day 4
 50-449

 Full Term (1-7 days)
 <10-279</td>

Levels decrease rapidly to <52 ng/dL after one week.

1-11m <10-37

Androstenedione gradually decreases during the first six months to prepubertal levels.

| Prepubertal Children | <10-17 |
|------------------------|--------|
| Adult Males | 44-186 |
| Adult Females | 2 -230 |
| Females Postmenopausal | <10-93 |

Cortisol

Units: ug/dL

| Age | Range |
|--------------------------|---------|
| Premature (26-28w) Day 4 | 1.0-11 |
| Premature (31-35w) Day 4 | 2.5-9.1 |
| Full Term Day 3 | 1.7-14 |
| Full Term Day 7 | 2.0-11 |
| 31d - 11m | 2.8-23 |
| 12m - 15y (8:00 AM) | 3 .0-21 |

Adults

8:00 AM 8.0-19 4:00 PM 4.0-11

Deoxycorticosterone (DOC)

Units: ng/dL

Age Range
Premature (26-28w) Day 4 20-105
Premature (34-36w) Day 4 28-78

Newborn: Levels are markedly elevated at birth and decrease rapidly during the first week to the range of 7-49 as found



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in older infants.

| 1-11m | 7-49 |
|------------------------------|------|
| Prepubertal Children | 2-34 |
| Pubertal Children and Adults | 2-19 |

8:00 AM

Dehydroepiandrosterone (DHEA)

Units: ng/dL

| Age | Range |
|--------------------|---------|
| Premature (26-31w) | 82-1484 |
| Premature (32-35w) | 56-1853 |
| Full Term (2-7d) | 41-1292 |
| 8d-5m | <948 |
| 6-12m | <136 |
| 1-5 y | <68 |
| 6-7 y | <111 |
| 8-10 y | <186 |
| 11-12 y | <202 |
| 13-14 y | <319 |
| 15-16 y | 39-481 |
| 17-19 y | 40-491 |
| 20 50 y | 31-701 |
| >50 y | 21-402 |

11-Desoxycortisol

Units: ng/dL

| Age | Range |
|------------------------------|----------|
| Premature (26-28w) Day 4 | 110-1376 |
| Premature (31-35w) Day 4 | 48-579 |
| Newborn Day 3 | 13-147 |
| 1-11m | <10-156 |
| Prepubertal 8:00 AM | 20-155 |
| Pubertal Children and Adults | 12-158 |
| | |

8:00 AM

17-OH Pregnenolone

Units: ng/dL

| Age | Range |
|--------------------------|----------|
| Premature (26-28w) Day 4 | 375-3559 |
| Premature (31-35w) Day 4 | 64-2380 |
| 3 Days | 10-829 |
| 1-5m | 36-763 |
| 6-11m | 42-540 |



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| 12-23m | 14-207 | |
|----------|--------|--|
| 24m-5y | 10-103 | |
| 6-9y | 10-186 | |
| Pubertal | 44-235 | |
| Adults | 53-357 | |
| | | |

Progesterone

Units: ng/dL Males

Age Range 1-16y <10-15 Adults <10-11

Females

Age Range 1-10y <10-26 <10-255 11y <10-856 12y 13y <10-693 14y <10-1204 <10-1076 15y <10-1294 16y

Adult

 Cycle Days
 Range

 1-6
 <10-17</td>

 7-12
 <10-135</td>

 13-15
 <10-1563</td>

 16-28
 <10-2555</td>

 Post Menopausal
 <10</td>

Note: Luteal progesterone peaked from 350 to 3750 ng/dL on days ranging from 17 to 23.

17-Alpha-Hydroxyprogesterone 17-OHP

Units: ng/dL

 Age
 Range

 Premature (26-28w) Day 4
 124-841

 Premature (31-35w) Day 4
 26-568

 Full-Term Day 3
 <78</td>

Males: Levels increase after the first week to peak values ranging from 40-200 between 30 and 60 days. Values then decline to a prepubertal value of <91 before one year.

Prepubertal <91 Adult Males 27-199



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Females

1-11m 13-106 Prepubertal <91

Adult Females

Follicular 15-70 Luteal 35-290

Testosterone, Total

Units: ng/dL

Age Range

Males

Premature (26-28w) Day 4 59-125
Premature (31-35w) Day 4 37-198
Newborns 75-400

1-7m: Levels decrease rapidly the first week to 20-50, then increase to 60-400 between 20-60 days. Levels then decline to prepubertal range levels of <2.5-10 by seven months.

Females

Premature (26-28w) Day 4 5-16
Premature (31-35w) Day 4 5-22
Newborns 20-64

1-7m: Levels decrease during the first month to less than 10 and remain there until puberty.

Prepubertal Males and Females <2.5-10 Adult Males >18 years 264-916

Adult Females

Premenopausal 10-55 Postmenopausal 7-40

Males

Tanner Stage Age (years) Range <9.8 <2.5-10 2 9.8-14.5 18-150 10.7-15.4 3 100-320 4 11.8-16.2 200-620 5 12.8-17.3 350-970

Females

 Tanner Stage
 Age (years)
 Range

 1
 <9.2</td>
 <2.5-10</td>

 2
 9.2-13.7
 7-28



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| 3 | 10.0-14.4 | 15-35 |
|---|-----------|-------|
| 4 | 10.7-15.6 | 13-32 |
| 5 | 11.8-18.6 | 20-38 |

Performance

PDF Report

No

Day(s) Performed

Monday, Wednesday

Report Available

10 to 19 days

Performing Laboratory Location

Esoterix Endocrinology

Fees & Codes

Fees

- Authorized users can sign in to <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification

This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the Food and Drug Administration.

CPT Code Information

82633/DOC 82634/ 11-Desoxycortisol 82157/Androstenedione 82533/Cortisol 82626/DHEA 84143/17-OH-Pregnenolone 84144/Progesterone 83498/17-OH-Progesterone 84403/Testosterone



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LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---------|-----------------|--------------------|
| FFCAH | CAH Profile 6 | Not Provided |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|-------------------------------|---------------------|
| Z5043 | Cortisol | 2143-6 |
| Z5044 | Deoxycorticosterone (DOC) | 1656-8 |
| Z5045 | 11-Desoxycortisol | 1657-6 |
| Z5046 | Dehydroepiandrosterone (DHEA) | 2193-1 |
| Z5047 | 17-OH Pregnenolone | 6765-2 |
| Z5048 | Progesterone | 2839-9 |
| Z5049 | 17-Alpha-Hydroxyprogesterone | 1668-3 |
| | 17-OHP | |
| Z5050 | Androstenedione | 1854-9 |
| Z5051 | Testosterone, Total | 2986-8 |