

**TEST CHANGE** 

## Congenital Adrenal Hyperplasia Panel, 21-Hydroxylase Deficiency 2002283, CAH 21 HYDROX

Specimen Requirements:	
Patient Preparation:	Collect between 6-10 a.m.
Collect:	Serum separator tube or green (sodium or lithium heparin). Also acceptable: Pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1.8 mL serum or plasma to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.9 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Refrigerated or room temperature specimens.
Remarks:	
Stability:	After separation from cells: Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 6 months
Methodology:	Quantitative High Performance Liquid Chromatography- Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1- <u>5</u> 4 days
Note:	
CPT Codes:	82157; 83498; 84143; 82626
New York DOH Approval Status:	This test is New York DOH approved.

Effective Date: February 20, 2024

Interpretive Data:

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Reference Interval:



est Iumber	Components	Reference Interval		
	17-Hydroxyprogesterone, HPLC-MS/MS			
		Age	Male (ng/dL)	Female (ng/dL)
		Premature (26-28 weeks)	124-841	124-841
		Premature (29-35 weeks)	26-568	26-568
		Full term Day 3	7-77	7-77
		4 days-30 days	Less than 200	7-106
		1 month-2 months	Less than 200	13-106
		3 months-5 months	3-90	13-106
		6 months-1 year	Less than or equal to 148	Less than or equal to 148
		2-3 years	Less than or equal to 228	Less than or equal to 256
		4-6 years	Less than or equal to 208	Less than or equal to 299
		7-9 years	Less than or equal to 63	Less than or equal to 71
		10-12 years	Less than or equal to 79	Less than or equal to 129
		13-15 years	9-140	9-208
		16-17 years	24-192	Less than or equal to 178
		18 years and older	Less than 139	Less than 207
		Follicular	Not Applicable	15-70
		Luteal	Not Applicable	35-290
		Tanner Stage I	Less than or equal to 62	Less than or equal to 74
		Tanner Stage II	Less than or equal to 104	Less than or equal to 164
		Tanner Stage III	Less than or equal to 151	13-209
		Tanner Stage IV- V	20-173	7-170
	17-Hydroxypregnenolone Quant, MS/MS, Ser			

	Age	Male (ng/dL)	Female (ng/dL)
	Premature (26-28 weeks)	1219-9799	1219-9799
	Premature (29-36 weeks)	346-8911	346-8911
	Full Term (1-5 months)	229-3104	229-3104
	6-12 months	Less than or equal to 917	Less than or equal to 917
	13-23 months	Less than or equal to 592	Less than or equal to 592
	2-4 years	Less than or equal to 249	Less than or equal to 280
	5-6 years	Less than or equal to 319	Less than or equal to 350
	7-9 years	Less than or equal to 187	Less than or equal to 212
	10-12 years	Less than or equal to 392	Less than or equal to 398
	13-15 years	35-465	Less than or equal to 407
	16-17 years	32-478	Less than or equal to 423
	18 years and older	Less than 442	Less than 226
	Tanner Stage I	Less than or equal to 208	Less than or equal to 235
	Tanner Stage II	Less than or equal to 355	Less than or equal to 367
	Tanner Stage III	Less than or equal to 450	Less than or equal to 430
	Tanner Stage IV & V	35-478	Less than or equal to 412
androstenedione by TMS			

Premature Infants (26-28 weeks Day 4) Premature Infants (31-35 weeks Day 4) Full Term Infants (1-7 days) 8-30 days 1-5 months 0.02-0.290 0.20-2.90 0.18-0.80 0.18-0.80 0.18-0.80 0.18-0.80 0.18-0.80 0.18-0.80 0.06-0.68 0.06-0.68 0.06-0.68 0.06-0.68 0.03-0.15 0.03-0.15 0.03-0.15 0.02-0.21 0.02-0.21 0.02-0.21 0.02-0.21 0.02-0.21 0.02-0.21 0.02-0.28 0.03-0.30 0.04-0.42 0.01-0.29 0.02-0.28 0.09-1.23 0.01-0.29 0.09-1.23 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Postmenopausal Tanner Stage I 0.08-0.48 0.15-1.37 Tanner Stage III Tanner Stage III 0.14-0.87 0.37-2.24 Tanner Stage III 0.14-0.87 0.37-2.24	Age	Male (ng/mL)	Female (ng/mL)
Infants (31-35 weeks Day 4) Full Term Infants (1-7 days) 8-30 days	Infants (26-28	0.92-2.82	0.92-2.82
(1-7 days) 8-30 days 0.18-0.80 0.18-0.80 1-5 months 0.06-0.68 0.06-0.68 6-24 months 0.03-0.15 Less than 0.15 2-3 years Less than 0.11 Less than 0.16 4-5 years 0.02-0.17 0.02-0.21 6-7 years 0.01-0.29 0.02-0.28 8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.26-2.14 Postmenopausal Tanner Stage II 0.04-0.32 0.05-0.51 Tanner Stage III 0.14-0.87 0.37-2.24	Infants (31-35	0.80-4.46	0.80-4.46
1-5 months 6-24 months 0.03-0.15 Less than 0.15 2-3 years Less than 0.11 Less than 0.16 4-5 years 0.02-0.17 0.02-0.21 6-7 years 0.01-0.29 0.02-0.28 8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.13-0.82 Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.02-0.21		0.20-2.90	0.20-2.90
6-24 months 2-3 years Less than 0.11 Less than 0.16 4-5 years 0.02-0.17 0.02-0.21 6-7 years 0.01-0.29 0.02-0.28 8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.26-2.14 Postmenopausal Not Applicable 0.13-0.82 Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.02-0.21	8-30 days	0.18-0.80	0.18-0.80
2-3 years Less than 0.11 Less than 0.16 4-5 years 0.02-0.17 0.02-0.21 6-7 years 0.01-0.29 0.02-0.28 8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.13-0.82 older Premenopausal Not Applicable 0.13-0.82 Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage III 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.37-2.24	1-5 months	0.06-0.68	0.06-0.68
4-5 years	6-24 months	0.03-0.15	Less than 0.15
6-7 years 0.01-0.29 0.02-0.28 8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.13-0.82 Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage III 0.14-0.87 0.37-2.24	2-3 years	Less than 0.11	Less than 0.16
8-9 years 0.03-0.30 0.04-0.42 10-11 years 0.07-0.39 0.09-1.23 12-13 years 0.10-0.64 0.24-1.73 14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.26-2.14 Postmenopausal Not Applicable 0.13-0.82 Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.37-2.24	4-5 years	0.02-0.17	0.02-0.21
10-11 years       0.07-0.39       0.09-1.23         12-13 years       0.10-0.64       0.24-1.73         14-15 years       0.18-0.94       0.39-2.00         16-17 years       0.30-1.13       0.35-2.12         18-39 years       0.33-1.34       0.26-2.14         40 years and older       0.23-0.89       0.13-0.82         Premenopausal Premenopausal Premenopausal Not Applicable       0.26-2.14         Not Applicable       0.13-0.82         Tanner Stage I       0.04-0.32       0.05-0.51         Tanner Stage III       0.08-0.48       0.15-1.37         Tanner Stage IIII       0.14-0.87       0.37-2.24	6-7 years	0.01-0.29	0.02-0.28
12-13 years       0.10-0.64       0.24-1.73         14-15 years       0.18-0.94       0.39-2.00         16-17 years       0.30-1.13       0.35-2.12         18-39 years       0.33-1.34       0.26-2.14         40 years and older       0.23-0.89       0.13-0.82         Premenopausal Premenopausal Premenopausal Premenopausal Not Applicable       0.26-2.14         Postmenopausal Tanner Stage I       0.04-0.32       0.05-0.51         Tanner Stage II       0.08-0.48       0.15-1.37         Tanner Stage III       0.14-0.87       0.37-2.24	8-9 years	0.03-0.30	0.04-0.42
14-15 years 0.18-0.94 0.39-2.00 16-17 years 0.30-1.13 0.35-2.12 18-39 years 0.33-1.34 0.26-2.14 40 years and older Premenopausal Not Applicable 0.26-2.14 Postmenopausal Not Applicable 0.13-0.82 Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.37-2.24	10-11 years	0.07-0.39	0.09-1.23
16-17 years       0.30-1.13       0.35-2.12         18-39 years       0.33-1.34       0.26-2.14         40 years and older       0.23-0.89       0.13-0.82         Premenopausal       Not Applicable       0.26-2.14         Postmenopausal       Not Applicable       0.13-0.82         Tanner Stage I       0.04-0.32       0.05-0.51         Tanner Stage II       0.08-0.48       0.15-1.37         Tanner Stage III       0.14-0.87       0.37-2.24	12-13 years	0.10-0.64	0.24-1.73
18-39 years       0.33-1.34       0.26-2.14         40 years and older       0.23-0.89       0.13-0.82         Premenopausal Postmenopausal Tanner Stage I       Not Applicable 0.26-2.14         Not Applicable O.13-0.82       0.13-0.82         Tanner Stage II       0.04-0.32       0.05-0.51         Tanner Stage III       0.08-0.48       0.15-1.37         Tanner Stage III       0.14-0.87       0.37-2.24	14-15 years	0.18-0.94	0.39-2.00
40 years and older       0.23-0.89       0.13-0.82         Premenopausal       Not Applicable       0.26-2.14         Postmenopausal       Not Applicable       0.13-0.82         Tanner Stage I       0.04-0.32       0.05-0.51         Tanner Stage II       0.08-0.48       0.15-1.37         Tanner Stage III       0.14-0.87       0.37-2.24	16-17 years	0.30-1.13	0.35-2.12
older         Premenopausal         Not Applicable         0.26-2.14           Postmenopausal         Not Applicable         0.13-0.82           Tanner Stage I         0.04-0.32         0.05-0.51           Tanner Stage II         0.08-0.48         0.15-1.37           Tanner Stage III         0.14-0.87         0.37-2.24	18-39 years	0.33-1.34	0.26-2.14
Postmenopausal         Not Applicable         0.13-0.82           Tanner Stage I         0.04-0.32         0.05-0.51           Tanner Stage II         0.08-0.48         0.15-1.37           Tanner Stage III         0.14-0.87         0.37-2.24		0.23-0.89	0.13-0.82
Tanner Stage I 0.04-0.32 0.05-0.51 Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.37-2.24	Premenopausal	Not Applicable	0.26-2.14
Tanner Stage II 0.08-0.48 0.15-1.37 Tanner Stage III 0.14-0.87 0.37-2.24	Postmenopausal	Not Applicable	0.13-0.82
Tanner Stage III 0.14-0.87 0.37-2.24	Tanner Stage I	0.04-0.32	0.05-0.51
	Tanner Stage II	0.08-0.48	0.15-1.37
Tanner Stage IV-V 0.27-1.07 0.35-2.05	Tanner Stage III	0.14-0.87	0.37-2.24
	Tanner Stage IV-V	0.27-1.07	0.35-2.05

Age	e	Male (ng/mL)	Female (ng/ml
<sup>o</sup> re	emature	Less than 40	Less than 40
	days	Less than 11	Less than 11
	days	Less than 8.7	Less than 8.7
da	lays-1 month	Less than 5.8	Less than 5.8
1-5	months	Less than 2.9	Less than 2.9
6-2	24 months	Less than 2.5	Less than 1.99
2-3	3 years	Less than 0.63	Less than 0.85
4-5	years	Less than 0.95	Less than 1.03
6-7	years	0.06-1.93	Less than 1.79
8-9	years	0.10-2.08	0.14-2.35
10-	-11 years	0.32-3.08	0.43-3.78
12-	-13 years	0.57-4.10	0.89-6.21
4-	-15 years	0.93-6.04	1.22-7.01
16-	-17 years	1.17-6.52	1.42-9.00
8-	-39 years	1.33-7.78	1.33-7.78
40 y	,	0.63-4.70	0.63-4.70
Pos	stmenopausal	Not Applicable	0.60-5.73
Tan	nner Stage I	0.11-2.37	0.14-2.76
Tan	nner Stage II	0.37-3.66	0.83-4.87
Tan	nner Stage III	0.75-5.24	1.08-7.56
Tan	nner Stage IV-V	1.22-6.73	1.24-7.88

