



## 127 Unique Biomarkers in LabSmarts

Biomarkers are listed under the analysis sections where their bar graphs appear.

Sections are listed in the order they appear in the analysis report.

### RBC Analysis

1. RBC\*
2. HGB\*
3. HCT\*
4. MCV\*
5. MCH\*
6. MCHC\*
7. RDW\*
8. CRC – corrected reticulocyte count
9. RPI – reticulocyte production index

### Iron Analysis

10. Iron\*
11. TIBC
12. % Saturation
13. Ferritin
14. Transferrin

Bar graphs for the markers below are shown in this section because they relate to iron, but are counted in the nutrients analysis section.

- Ceruloplasmin
- Copper, RBC
- Copper, serum
- Free Copper (%)
- Vitamin A

### Immune System Analysis

15. WBC\*
16. Neutrophils %\*
17. Lymphocytes %\*
18. Monocytes %\*
19. Eosinophils %\*
20. Basophils %\*
21. Neutrophils Absolute\*
22. Lymphocytes Absolute\*
23. Monocytes Absolute\*
24. Eosinophils Absolute\*
25. Basophils Absolute\*
26. NLR – Neutrophils-to-Lymphocyte Ratio\*

Bar graphs for the markers below are shown in this section because they relate to the immune system, but are counted in their main section.

- Globulin (Proteins)
- Alkaline Phosphatase (Liver)

### Coagulation Analysis

27. Platelets\*
28. MPV\*
29. D-Dimer\*
30. Fibrinogen

### Glucose Analysis

31. Glucose\*
  32. HbA1c
  33. Insulin
  34. C-peptide
  35. Amylase\*
- Triglycerides

### Kidney Analysis

36. BUN\*
37. Creatinine\*
38. eGFR\*
39. BUN/Creatinine Ratio\*
40. Uric Acid

## Nutrients Analysis

41. Calcium (corrected for low albumin) \*
42. Ceruloplasmin\*
43. Copper, RBC
44. Copper, serum\*
45. Free Copper (%)
46. Cu/Zn Ratio
47. Phosphorus
48. Magnesium, RBC
49. Magnesium, serum
50. Vitamin A\*
51. Vitamin B6\*
52. Vitamin B12\*
53. Folate, RBC
54. Folate, serum
55. Vitamin D (25-OH)
56. Vitamin D 1,25 (OH)2
57. Zinc, RBC
58. Zinc, serum\*

## Liver / Biliary Analysis

70. Bile Acids
71. Bilirubin, Total\*
72. Bilirubin, Direct
73. Bilirubin, Indirect
74. Alkaline Phosphatase\*
75. AST (SGOT) \*
76. ALT (SGPT) \*
77. GGT
78. Lactate Dehydrogenase (LDH, LD)\*

## Inflammation / Oxidative Stress Analysis

89. Homocysteine
90. hs-CRP\*
91. Sedimentation Rate (ESR)

Bar graphs for the markers below are presented in this section because they can serve as an indication of inflammation or oxidative stress, but are counted in their main section.

- Albumin (Proteins)
- Bilirubin, Total (Liver)
- Ceruloplasmin (Nutrients)
- Ferritin (Iron)
- Fibrinogen (Coagulation)
- GGT (Liver)
- HDL (Lipids)
- TIBC (Iron)
- Transferrin (Iron)
- Uric Acid (Kidneys)

## Electrolytes Analysis

59. Sodium\*
60. Potassium\*
61. Na/K Ratio\*
62. Chloride\*
63. Carbon Dioxide\*
64. Anion Gap w/o K\*
65. Anion Gap w/ K\*

## Proteins Analysis

66. Protein, Total\*
67. Albumin\*
68. Globulin\*
69. Albumin / Globulin Ratio\*

## Lipids Analysis

79. Cholesterol, Total
80. HDL Cholesterol
81. Triglycerides
82. LDL Cholesterol
83. Cholesterol / HDL Ratio
84. Triglycerides / HDL Ratio
85. Apolipoprotein A-1 (Apo A-1)\*
86. Apolipoprotein B (Apo B)\*
87. Apo B / Apo A-1 Ratio
88. Lipoprotein (a)

## Thyroid Analysis

- 92. TSH\*
- 93. T4, Total
- 94. T4, Free
- 95. T3, Total
- 96. T3, Free
- 97. Reverse T3
- 98. TPO Antibodies
- 99. Tg Antibodies
- 100. TBG
- 101. T3 Uptake
- 102. FTI

## Hormones Analysis

- 103. Anti-Mullerian Hormone (AMH)\*
- 104. Cortisol, AM\*
- 105. Cortisol, PM
- 106. DHEA-S\*
- 107. DHT
- 108. Estradiol (E2)\*
- 109. Estriol (E3)
- 110. Estrogens, Total\*
- 111. Estrone (E1)\*
- 112. FSH\*
- 113. hCG
- 114. IGF-1\*
- 115. LH\*
- 116. Pregnenolone\*
- 117. Progesterone\*
- 118. 17-OHP\*
- 119. Prolactin\*
- 120. Prolactin, Lactating
- 121. SHBG\*
- 122. Bioavailable Testosterone
- 123. Bioavailable Testosterone %
- 124. Free Testosterone, Calculated\*
- 125. Free Testosterone, Direct\*
- 126. Total Testosterone\*
- 127. Total Testosterone, LC/MS\*

\* Biomarkers with pediatric reference ranges (75 of 127).