



Specialty Immunoassays Test Menu

Rules-Based Medicine (RBM) is a CLIA-certified immunoassay testing laboratory that solves complex drug development challenges with innovative biomarker services and products. RBM offers one of the most comprehensive menus of quantitative protein biomarkers, including multiplexed immunoassays (Luminex®) and ultrasensitive immunoassays (Simoa®).

From a small sample volume, we provide:

- Reproducible, quantitative immunoassay data for hundreds of proteins
- Accurate pharmacodynamic and safety assessment
- Dynamic coverage of multiple pathways, enabling biological analysis and discovery

As the specialty immunoassay testing lab within IQVIA Laboratories, RBM develops, validates and manufactures Luminex- and Simoa-based assays in-house, delivering the highest level of quality through rigorous quality parameters at every stage of the process. From R&D projects to complex multi-site clinical trials that span several years, RBM delivers the reliable data you need for the biomarkers you want.

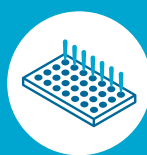
In addition to our internally developed options, we also offer the Olink® Target 48 Cytokine Panel, with additional Olink offerings coming soon.

The RBM Difference



Quality

Our processes include in-house developed calibrators and controls to ensure quality with every assay on every run. Through continuous quality improvement, RBM ensures customers are satisfied with the products and services they receive.



Innovation

Our automated liquid handlers enable high throughput to meet your study needs. And our proprietary blockers eliminate the complex matrix interference issues often associated with immunoassays. We also offer cost-effective assay development programs.



Project Management

All testing services are accompanied by documented oversight of study project requirements, timelines and specifications by a dedicated Project Manager liaising between clients, sponsors, and central labs.

Analytes available within multiplexed assays (Luminex® platform)

Our multiplexed biomarkers are available as part of Multi-Analyte Profiles (MAPs) or as part of smaller or custom profiles. RBM offers approximately 60 validated multiplex panels. Contact your business development representative for the analyte configurations of our validated multiplexes.

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|---------------------------------------|---|---|
| 1. 6Ckine (CCL21) | 23. Calbindin | 45. Eotaxin-3 (CCL26) |
| 2. Adiponectin | 24. Cancer Antigen 125 | 46. Epidermal Growth Factor |
| 3. Alpha-1-Antitrypsin | 25. Cancer Antigen 15-3 | 47. Epidermal Growth Factor Receptor |
| 4. Alpha-2-Macroglobulin | 26. Cancer Antigen 19-9 | 48. Epiregulin |
| 5. Alpha-Fetoprotein | 27. Carbonic anhydrase 9 | 49. Epithelial-Derived Neutrophil-Activating Protein 78 (CXCL5) |
| 6. Amphiregulin | 28. Carcinoembryonic Antigen | 50. Erythropoietin |
| 7. Angiogenin | 29. Cartilage Oligomeric Matrix Protein | 51. FASLG Receptor |
| 8. Angiopoietin-1 | 30. Cathepsin D | 52. Factor VII |
| 9. Angiopoietin-2 | 31. Chemokine CC-4 (HCC-4) | 53. Fas Ligand |
| 10. Angiotensin-Converting Enzyme | 32. Ciliary Neurotrophic Factor | 54. Fatty Acid-Binding Protein, adipocyte |
| 11. Antithrombin-III | 33. Clusterin | 55. Fatty Acid-Binding Protein, heart |
| 12. Apolipoprotein(a) | 34. Collagen IV | 56. Fatty Acid-Binding Protein, liver |
| 13. AXL Receptor Tyrosine Kinase | 35. Complement C3 | 57. Ferritin |
| 14. B cell-activating factor | 36. CYFRA 21-1 | 58. Fibrinogen |
| 15. Beta-2-Microglobulin | 37. Cystatin-C | 59. Fibroblast Growth Factor 21 |
| 16. Betacellulin | 38. Decorin | 60. Fibroblast Growth Factor 23 |
| 17. Brain-Derived Neurotrophic Factor | 39. Dickkopf-related protein 1 | 61. Ficolin-3 |
| 18. C-Reactive Protein | 40. E-Selectin | 62. Follicle-Stimulating Hormone |
| 19. CD 40 antigen | 41. Elafin | 63. Glucagon-like Peptide 1, total |
| 20. CD163 | 42. EN-RAGE | 64. Granulocyte Colony-Stimulating Factor |
| 21. CD27 antigen | 43. Eotaxin-1 (CCL11) | 65. Granulocyte-Macrophage Colony-Stimulating Factor |
| 22. CD40 Ligand | 44. Eotaxin-2 (CCL24) | |

66. Growth Hormone
67. Growth-Regulated alpha protein (CXCL1)
68. Haptoglobin
69. Heparin-Binding EGF-Like Growth Factor
70. Hepatocyte Growth Factor receptor
71. Hepsin
72. Human Chorionic Gonadotropin beta
73. Human Epidermal Growth Factor Receptor 2
74. Intercellular Adhesion Molecule 1 (ICAM-1)
75. Immunoglobulin A
76. Immunoglobulin E
77. Immunoglobulin M
78. Insulin
79. Insulin-like Growth Factor-Binding Protein 1
80. Insulin-like Growth Factor-Binding Protein 2
81. Intercellular Adhesion Molecule 1
82. Interferon alpha
83. Interferon gamma
84. Interferon gamma Induced Protein 10 (CXCL10)
85. Interferon-inducible T-cell alpha chemoattractant (CXCL11)
86. Interleukin-1 alpha
87. Interleukin-1 beta
88. Interleukin-1 receptor antagonist
89. Interleukin-1 receptor type 1
90. Interleukin-1 receptor type 2
91. Interleukin-2
92. Interleukin-2 receptor alpha
93. Interleukin-3
94. Interleukin-4
95. Interleukin-5
96. Interleukin-6
97. Interleukin-6 receptor
98. Interleukin-6 receptor subunit beta
99. Interleukin-7
100. Interleukin-8
101. Interleukin-10
102. Interleukin-12 Subunit p40
103. Interleukin-12 Subunit p70
104. Interleukin-13
105. Interleukin-16
106. Interleukin-17
107. Interleukin-18
108. Interleukin-18-binding protein
109. Interleukin-22
110. Interleukin-27
111. Kallikrein 5
112. Kallikrein-7
113. Kidney Injury Molecule-1
114. Krebs von den Lungen-6, Mucin1 (KL-6)
115. Latency-Associated Peptide of Transforming Growth Factor beta 1
116. Lectin-Like Oxidized LDL Receptor 1
117. Leptin
118. Leucine-rich alpha-2-glycoprotein
119. Macrophage Colony-Stimulating Factor 1
120. Macrophage Inflammatory Protein-1 alpha
121. Macrophage Inflammatory Protein-1 beta (CCL4)
122. Macrophage Inflammatory Protein-3 alpha (CCL20)
123. Macrophage Migration Inhibitory Factor
124. Macrophage inflammatory protein 3 beta (CCL19)
125. Macrophage-Derived Chemokine (CCL22)
126. Maspin
127. Matrix Metalloproteinase-1
128. Matrix Metalloproteinase-2
129. Matrix Metalloproteinase-3
130. Matrix Metalloproteinase-7
131. Matrix Metalloproteinase-9
132. MHC class I chain-related protein A
133. Monocyte Chemotactic Protein 1 (CCL2)
134. Monocyte Chemotactic Protein 2 (CCL8)
135. Monocyte Chemotactic Protein 3 (CCL7)
136. Monocyte Chemotactic Protein 4 (CCL13)
137. Monokine Induced by Gamma Interferon (CXCL9)
138. Myeloid Progenitor Inhibitory Factor 1 (CCL23)
139. Myeloperoxidase
140. Myoglobin
141. N-terminal prohormone of brain natriuretic peptide
142. Neuron-Specific Enolase
143. Neuronal Cell Adhesion Molecule
144. Neuropilin-1
145. Neutrophil Activating Peptide 2 (CXCL7)
146. Neutrophil Gelatinase-Associated Lipocalin
147. Osteocalcin
148. Osteopontin
149. Osteoprotegerin
150. P-Selectin
151. Pancreatic Polypeptide
152. Pepsinogen I
153. Periostin
154. Pigment Epithelium Derived Factor
155. Placenta Growth Factor
156. Plasminogen Activator Inhibitor 1
157. Platelet endothelial cell adhesion molecule
158. Platelet-Derived Growth Factor BB
159. Progranulin
160. Prolactin
161. Prostatin
162. Prostate-Specific Antigen, Free
163. Pulmonary and Activation-Regulated Chemokine (CCL18)
164. Pulmonary surfactant-associated protein D
165. Receptor for advanced glycosylation end products
166. Resistin
167. S100 calcium-binding protein B
168. ST2
169. Serum Amyloid A Protein
170. Serum Amyloid P-Component
171. Sex Hormone-Binding Globulin
172. Sortilin
173. Stem Cell Factor
174. Stromal cell-derived factor-1 (CXCL12)
175. Superoxide Dismutase 1, soluble
176. T-Cell-Specific Protein RANTES (CCL5)
177. Tamm-Horsfall Urinary Glycoprotein
178. Tenascin-C
179. Thrombin-Activatable Fibrinolysis Inhibitor
180. Thrombomodulin
181. Thrombospondin-1
182. Thymus and activation-regulated chemokine (CCL17)
183. Thymus-Expressed Chemokine (CCL25)
184. Thyroglobulin
185. Thyroid-Stimulating Hormone
186. Thyroxine-Binding Globulin
187. Tissue Inhibitor of Metalloproteinases 1
188. Tissue Inhibitor of Metalloproteinases 3
189. TNF-Related Apoptosis-Inducing Ligand Receptor 3
190. Trefoil Factor 3
191. Tumor Necrosis Factor alpha
192. Tumor Necrosis Factor beta
193. Tumor necrosis factor ligand superfamily member 12
194. Tumor necrosis factor ligand superfamily member 13
195. Tumor Necrosis Factor Receptor I
196. Tumor necrosis factor receptor 2
197. Tyrosine kinase with Ig and EGF homology domains 2
198. Urokinase-type plasminogen activator receptor
199. Vascular Cell Adhesion Molecule-1
200. Vascular Endothelial Growth Factor
201. Vascular endothelial growth factor D
202. Vascular Endothelial Growth Factor Receptor 1
203. Vascular Endothelial Growth Factor Receptor 2
204. Vascular endothelial growth factor receptor 3
205. Vitamin D-Binding Protein
206. Vitronectin
207. Vitamin D-Binding Protein
208. Vitronectin
209. von Willebrand Factor
210. YKL-40

Ultrasensitive Immunoassays (Simoa® platform)

The Single Molecule Array (Simoa) technology by Quanterix provides ultrasensitive measurement of protein biomarkers that exist in extremely low concentrations in serum and plasma, enabling results with orders-of-magnitude greater sensitivity (femtogram/mL) compared to conventional platforms. Our expanding ultrasensitive menu includes the following assays:

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| 1. Alpha-synuclein (A-Syn) | 14. Interleukin-2 (IL-2) | 29. Interleukin-23 (IL-23) |
| 2. B Lymphocyte Chemoattractant (BLC, CXCL13) | 15. Interleukin-4 (IL-4) | 30. Interleukin-31 (IL-31) |
| 3. Beta Amyloid 1-40 | 16. Interleukin-5 (IL-5) | 31. Interleukin-33 (IL-33) |
| 4. Beta Amyloid 1-42 | 17. Interleukin-6 (IL-6) | 32. Myeloid cell surface antigen CD33 (CD33) |
| 5. Fibroblast Growth Factor 23 (FGF-23) | 18. Interleukin-8 (IL-8) | 33. Neurofilament heavy polypeptide – phosphorylated |
| 6. Glial Fibrillary Acidic Protein (GFAP) | 19. Interleukin-10 (IL-10) | 34. Neurofilament Light Chain (NF-L) |
| 7. Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) | 20. Interleukin-12 Subunit p40 (IL-12p40) | 35. Phospho-Tau181 (pTau181) |
| 8. Granzyme B (GranzymeB) | 21. Interleukin-13 (IL-13) | 36. Phospho-Tau217 (pTau217) |
| 9. Growth/differentiation factor 11 (GDF-11) | 22. Interleukin-15 (IL-15) | 37. Receptor Activator of Nuclear Factor Kappa B Ligand (RANKL) |
| 10. Interferon alpha (IFN-alpha) | 23. Interleukin-17A (IL-17A) | 38. Tau |
| 11. Interferon beta (IFN-beta) | 24. Interleukin-17C (IL-17C) | 39. Triggering Receptor Expressed On Myeloid Cells 2 (TREM1) |
| 12. Interferon gamma (IFN-gamma) | 25. Interleukin-17F (IL-17F) | 40. Triggering Receptor Expressed On Myeloid Cells 2 (TREM2) |
| 13. Interleukin-1 beta (IL-1 beta) | 26. Interleukin-19 (IL-19) | 41. Tumor Necrosis Factor-alpha (TNF-alpha) |
| | 27. Interleukin-21 (IL-21) | |
| | 28. Interleukin-22 (IL-22) | |

Standardized Immuno-monitoring Using TruCulture®

In addition to our specialty immunoassay testing, Rules-Based Medicine offers a proprietary solution for evaluating the pharmacodynamics (PD), dosing and safety of potential therapeutic drug candidates on the immune system during early-stage clinical trials. TruCulture® is a closed system for whole blood collection and culturing at the collection site.

TruCulture delivers:

1. Reproducible and consistent results

Reduces assay variability by eliminating the need for sample processing prior to culturing

2. Cost-effective and patient-inclusive

TruCulture eliminates the need for expensive lab equipment or specialized collection techniques. This enables broader participation from under-represented populations.

3. Flexibility

Send your TruCulture samples directly to RBM for Luminex- or Simoa-based testing or to your lab of choice.

Contact us

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an IQVIA business