First-trimester Preeclampsia-induced Disturbance in Maternal Blood Serum Proteome: A Pilot Study

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| **Citation:** To be added by editorial staff during production.  Academic Editor: Firstname Lastname  Received: date  Revised: date  Accepted: date  Published: date    **Copyright:** © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/). |

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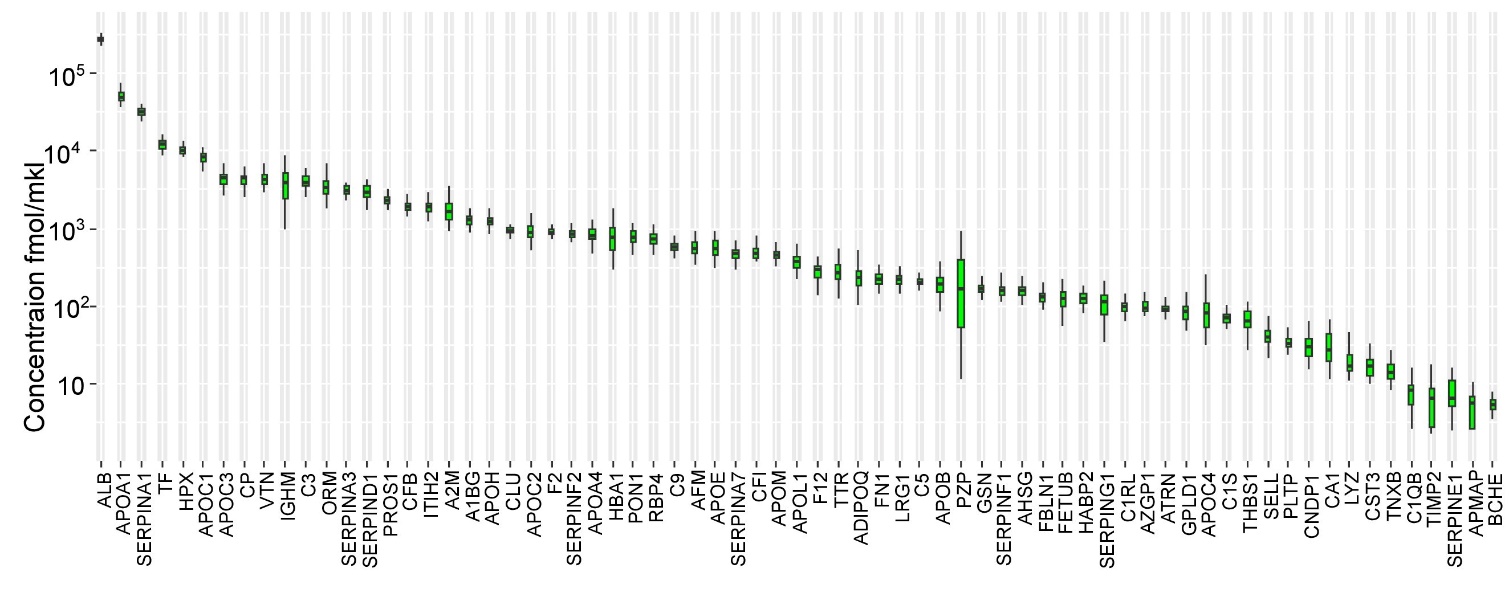


Figure S1. Serum proteins concentration in the samples of pregnant women (n=50).

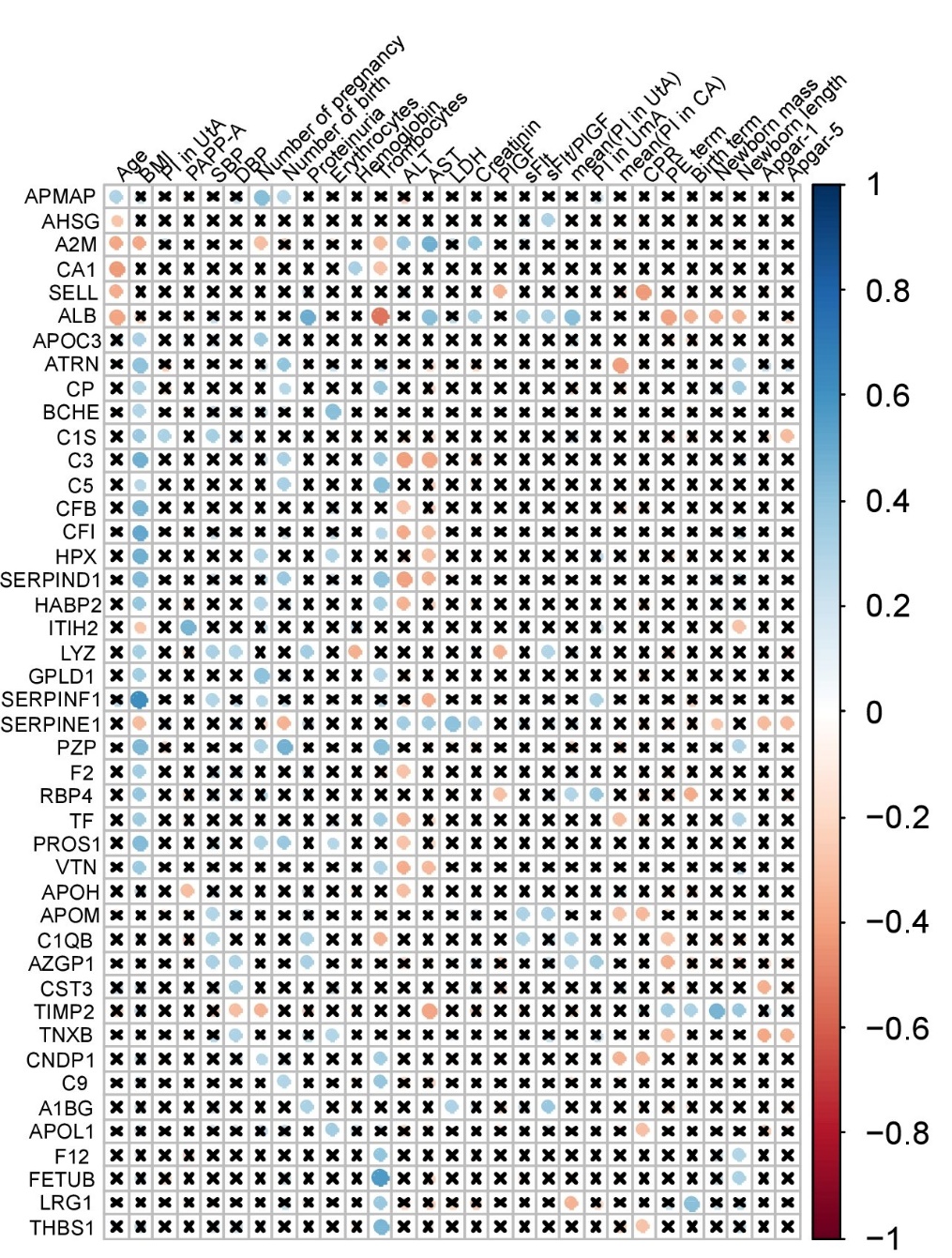


Figure S2. Correlation plot for protein concentrations and clinical parameters.

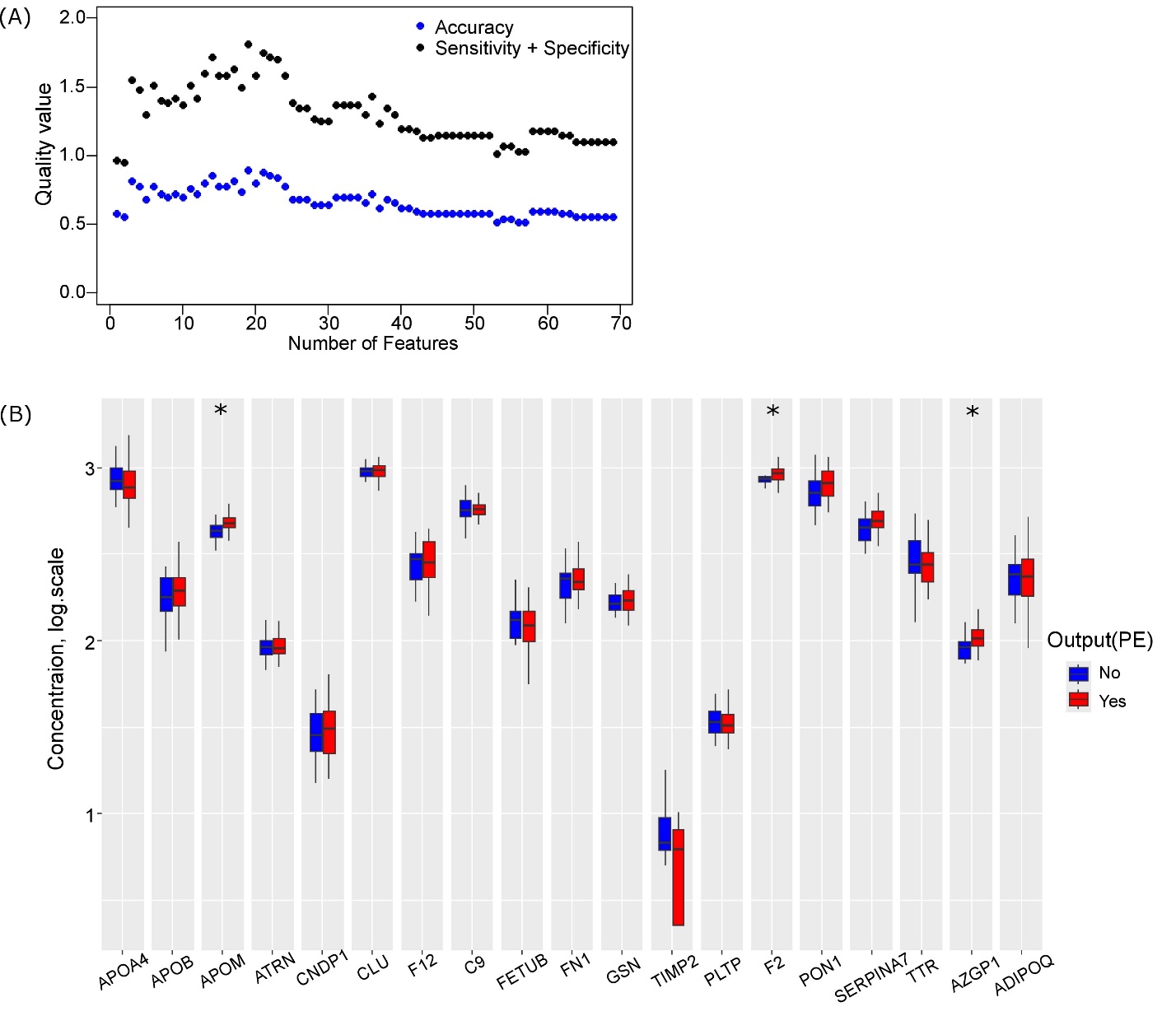


Figure S3. SVM model for PE prediction based on the level of 19 maternal proteins. (A) Model quality for PE prediction across various feature set lengths. (B) Concentration levels of proteins included in the optimal SVM model for PE prediction. \* - statistically significant variations (p < 0.05) as determined by the Mann-Whitney U test.

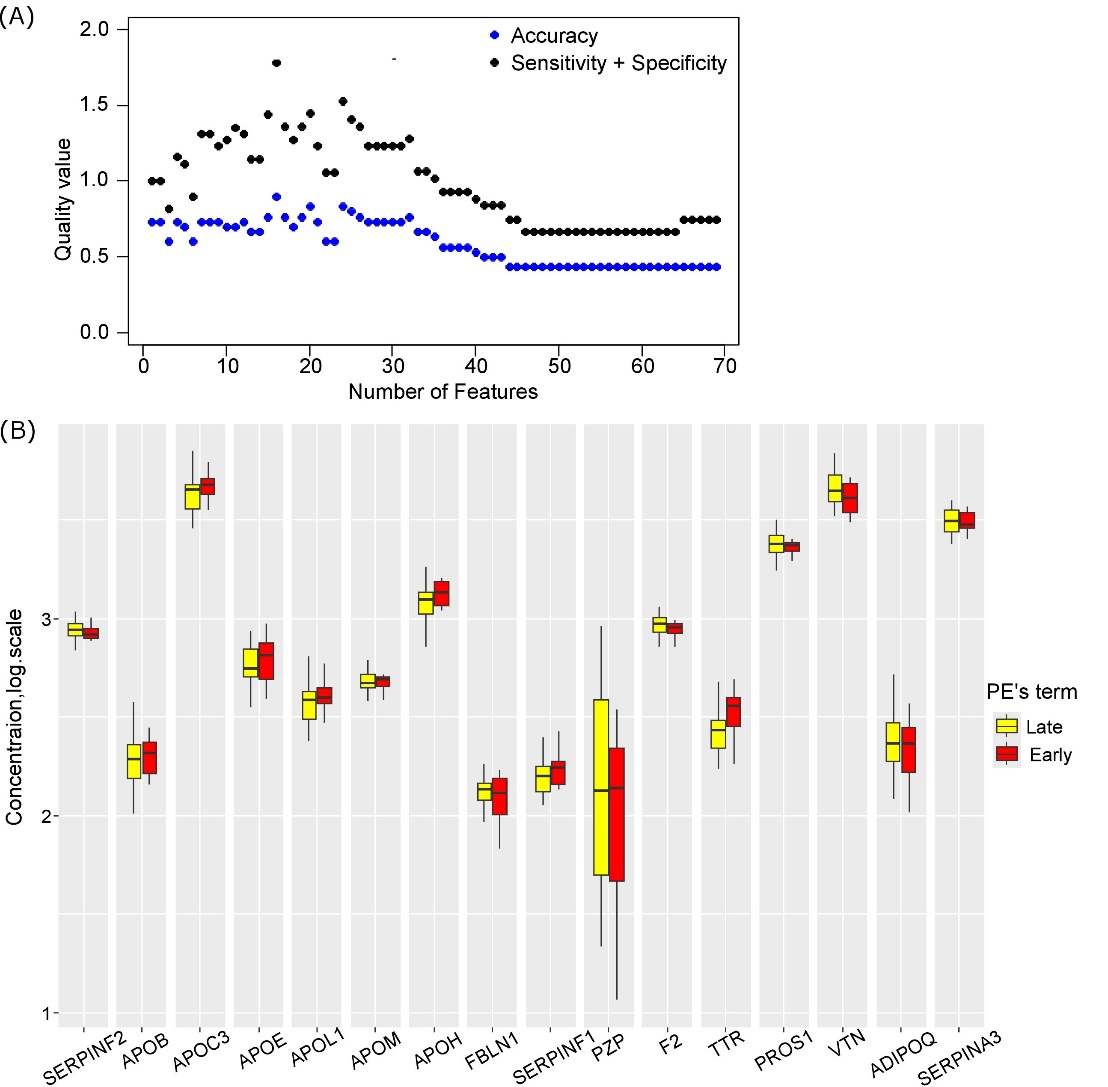


Figure S4. SVM model for PE onset prediction based on the level of 16 maternal proteins. (A) Model quality across various feature set lengths. (B) Concentration levels of proteins included in the model. \* - statistically significant variations (p < 0.05) as determined by the Mann-Whitney U test.

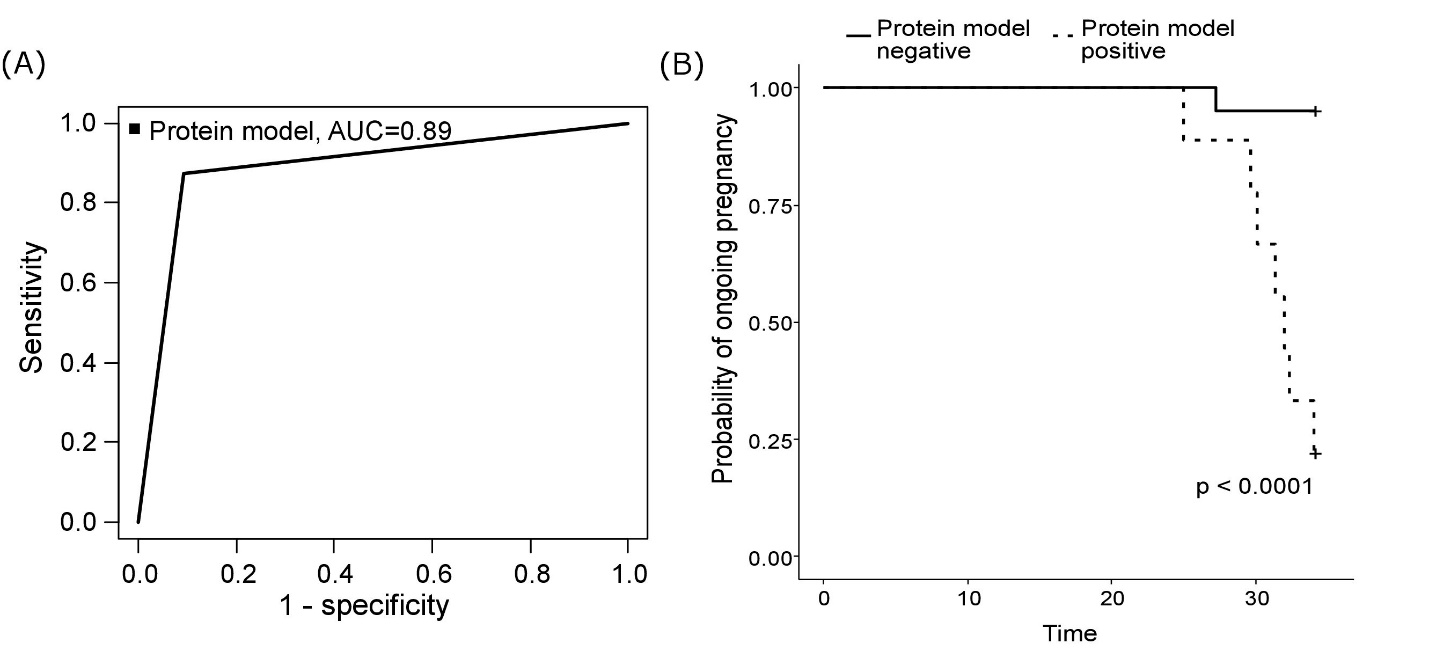


Figure S5. Performance of SVM model for the timing of PE onset risk based on the level of 16 maternal proteins. (A) Receive operation curve (ROC) analysis. AUC – area under the curve. (B) Multivariable Cox proportional hazards regression analysis of time from recruitment to delivery in weeks by the studied prognostic method.

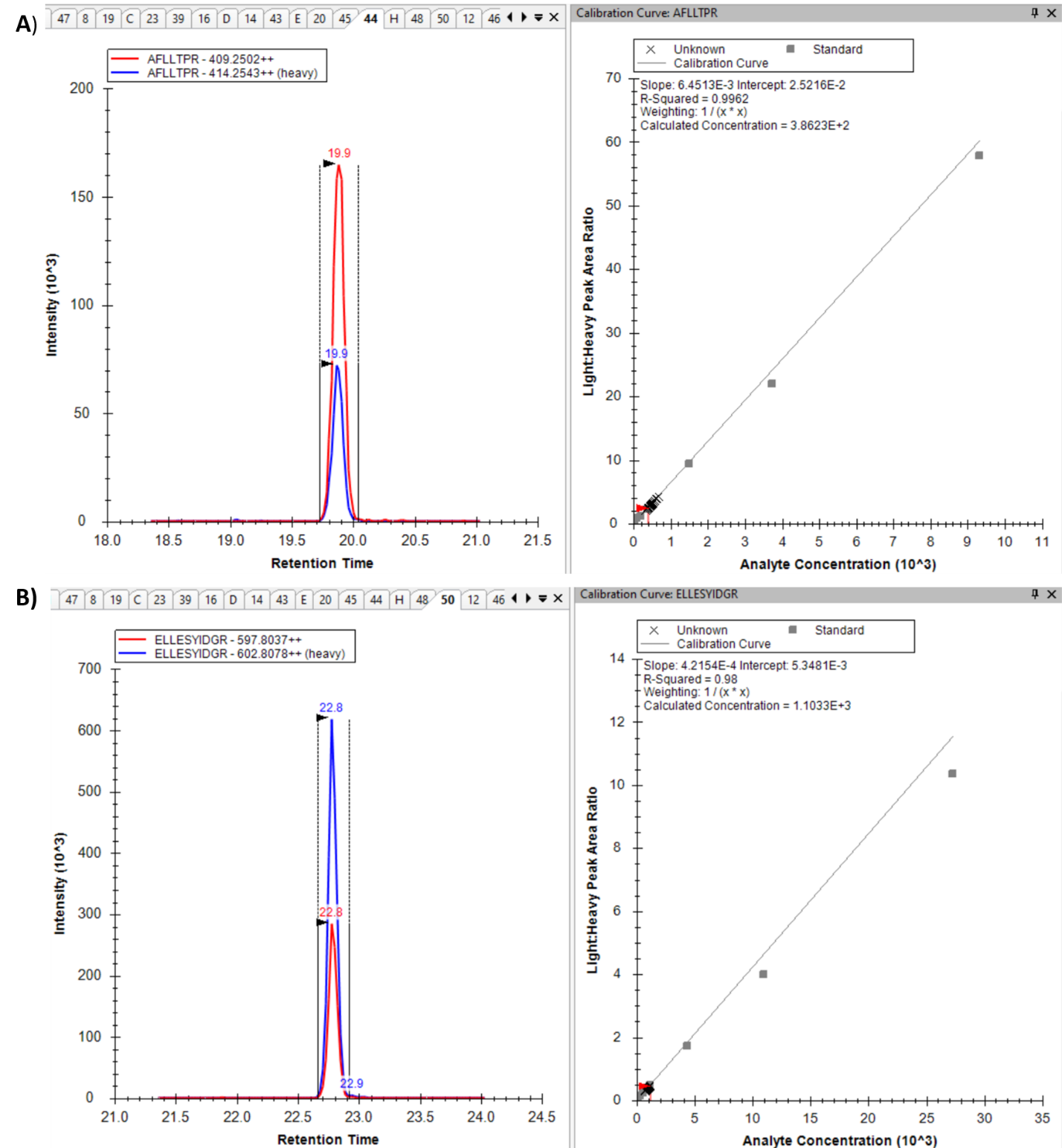


Figure S6. The example of extracted ion chromatogram of MRM transitions monitored for proteotypic NAT and SIS peptides, corresponding to (A) APOM and (B) F2, potential markers for PE.

Table S1. Concentration of maternal serum proteins (fmol/µL) with statistically significant differences between groups without PE (CTR and GAH) (n=20) and PE groups (eo-PE and lo-PE) (n=30). For each protein, the following information is provided: median ratio (fold change, FC), uncorrected p-value, false discovery rate (FDR) and effect size value.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Serum protein | GAH and CTR groups  (n=20) | PE group  (n=30) | FC | P | FDR | Effect size |
| Apolipoprotein M | 4.3\*102  (4.0\*102;4.6\*102) | 4.8\*102  (4.5\*102;5.1\*102) | 1.1 | 0.01 | 0.32 | -0.76 |
| Complement C1q subcomponent subunit B | 6.5  (2.6;9.1) | 9.0  (6.9;1.1\*10) | 1.4 | 0.02 | 0.32 | -0.79 |
| Lysozyme C | 1.5\*10  (1.3\*10;1.8\*10) | 1.9\*10  (1.6\*10;2.5\*10) | 1.3 | 0.02 | 0.32 | -0.61 |
| Prothrombin | 8.63\*102  (8.3\*102;8.8\*102) | 9.3\*102  (8.5\*102;9.8\*102) | 1.1 | 0.03 | 0.32 | -0.58 |
| Serum albumin | 2.6e\*105  (2.5\*105;2.8\*105) | 2.8\*105  (2.7\*105;2.9\*105) | 1.1 | <0.001 | 0.03 | -1.08 |
| Tenascin-X | 1.2\*10  (1.0\*10;1.5\*10) | 1.4\*10  (1.2\*10;2.1\*10) | 1.2 | 0.03 | 0.32 | -0.63 |
| Zinc-alpha-2-glycoprotein | 9.2\*10  (7.8\*10;9.9\*10) | 1.0\*102  (9.3\*10;1.2\*102) | 1.11 | 0.009 | 0.32 | -0.79 |

Table S2. Pathways that are statistically significantly over-represented by proteins associated with PE.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Proteins | P | FDR | Pathway | Database |
| F2; ALB | <0.001 | 0.004 | FOXA2 and FOXA3 transcription factor networks | PID |
| F2; ALB | <0.001 | 0.004 | Vitamin B12 metabolism | Wikipathways |
| F2; C1QB | <0.001 | 0.004 | Complement and Coagulation Cascades | Wikipathways |
| F2; ALB | <0.001 | 0.004 | Folate Metabolism | Wikipathways |
| F2; C1QB | 0.001 | 0.004 | Complement and coagulation cascades - Homo sapiens (human) | KEGG |
| F2; ALB | 0.001 | 0.004 | Selenium Micronutrient Network | Wikipathways |
| F2; ALB | 0.002 | 0.006 | Regulation of Insulin-like Growth Factor (IGF) transport and uptake by Insulin-like Growth Factor Binding Proteins (IGFBPs) | Reactome |
| F2; C1QB | 0.002 | 0.006 | Regulation of Complement cascade | Reactome |
| F2; C1QB | 0.003 | 0.006 | Complement cascade | Reactome |
| F2; C1QB | 0.008 | 0.01 | Coronavirus disease - COVID-19 - Homo sapiens (human) | KEGG |
| F2; ALB | 0.009 | 0.02 | Platelet activation, signaling and aggregation | Reactome |

Table S3. Concentration of maternal serum proteins (fmol/µL) with statistically significant differences between eo-PE (n=8) and lo-PE (n=22) groups. For each protein, the following information is provided: median ratio (fold change, FC), uncorrected p-value, false discovery rate (FDR) and effect size value.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Serum proteins | Late PE  (n=22) | Early PE  (n=8) | FC | P | FDR | Effect size |
| Alpha-1-antitrypsin | 3.3\*104  (3.2\*104;3.6\*104) | 3.1\*104  (2.8\*104;3.3\*104) | 0.9 | 0.04 | 0.73 | 0.81 |
| Apolipoprotein A-IV | 7.4\*102  (6.3\*102;9.9\*102) | 9.6\*102  (9.0\*102;1.1\*103) | 1.3 | 0.02 | 0.72 | -1.04 |
| Attractin | 9.4\*10  (8.8\*10;1.1\*102) | 8.6\*10  (8.0\*10;8.8\*10) | 0.9 | 0.04 | 0.73 | 0.79 |

Table S4. Statistical significant associations between clinical parameter and protein concentrations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Serum protein | R | CI | P |
| Age | Adipocyte plasma membrane-associated protein | 0.30 | 0.01 - 0.53 | 0.04 |
| Alpha-2-HS-glycoprotein | -0.28 | -0.52 - -0.005 | 0.05 |
| Alpha-2-macroglobulin | -0.39 | -0.61 - -0.13 | 0.005 |
| Carbonic anhydrase 1 | -0.43 | -0.63 - -0.17 | 0.002 |
| Hemoglobin subunit alpha | -0.37 | -0.59 - -0.10 | 0.009 |
| L-selectin | -0.37 | -0.59 - -0.11 | 0.007 |
| Serum albumin | -0.4 | -0.61 - -0.14 | 0.004 |
| BMI | Alpha-2-macroglobulin | -0.39 | -0.61 - -0.13 | 0.005 |
| Apolipoprotein C-III | 0.32 | 0.04 - 0.55 | 0.03 |
| Apolipoprotein C-IV | 0.37 | 0.11 - 0.59 | 0.008 |
| Attractin | 0.4 | 0.14 - 0.61 | 0.004 |
| Ceruloplasmin | 0.31 | 0.03 - 0.54 | 0.03 |
| Cholinesterase | 0.29 | 0.02 - 0.53 | 0.04 |
| Complement C1s subcomponent | 0.37 | 0.10 - 0.59 | 0.009 |
| Complement C3 | 0.48 | 0.23 - 0.67 | <0.001 |
| Complement C5 | 0.28 | 0.005 - 0.52 | 0.049 |
| Complement factor B | 0.46 | 0.21 - 0.66 | <0.001 |
| Complement factor I | 0.51 | 0.27 - 0.69 | <0.001 |
| Hemopexin | 0.48 | 0.24 - 0.67 | <0.001 |
| Heparin cofactor 2 | 0.43 | 0.17 - 0.63 | 0.002 |
| Hyaluronan-binding protein 2 | 0.38 | 0.12 - 0.60 | 0.007 |
| Inter-alpha-trypsin inhibitor heavy chain H2 | -0.28 | -0.52 - -0.007 | 0.048 |
| Lysozyme C | 0.33 | 0.05 - 0.55 | 0.02 |
| Phosphatidylinositol-glycan-specific phospholipase D | 0.34 | 0.07 - 0.56 | 0.02 |
| Phospholipid transfer protein | 0.3 | 0.03 - 0.54 | 0.03 |
| Pigment epithelium-derived factor | 0.61 | 0.40 - 0.76 | <0.001 |
| Plasma serine protease inhibitor | -0.32 | -0.55 - -0.04 | 0.03 |
| Pregnancy zone protein | 0.44 | 0.19 - 0.64 | 0.002 |
| Prothrombin | 0.34 | 0.07 - 0.57 | 0.02 |
| Retinol-binding protein 4 | 0.38 | 0.12 - 0.60 | 0.006 |
| Serotransferrin | 0.35 | 0.08 - 0.58 | 0.01 |
| Vitamin K-dependent protein S | 0.43 | 0.17 - 0.63 | 0.002 |
| Vitronectin | 0.36 | 0.09 - 0.58 | 0.01 |
| PI in uterus arteria | Complement C1s subcomponent | 0.31 | 0.04 - 0.54 | 0.03 |
| PAPP-A | Apolipoprotein C-II | 0.33 | 0.06 - 0.56 | 0.02 |
| Beta-2-glycoprotein 1 | -0.31 | -0.54 - -0.04 | 0.03 |
| Gelsolin | -0.44 | -0.64 - -0.19 | 0.001 |
| Inter-alpha-trypsin inhibitor heavy chain H2 | 0.46 | 0.21 - 0.66 | <0.001 |
| SBP | Apolipoprotein M | 0.29 | 0.01 - 0.53 | 0.04 |
| Complement C1q subcomponent subunit B | 0.31 | 0.04 - 0.55 | 0.03 |
| Complement C1s subcomponent | 0.33 | 0.05 - 0.55 | 0.02 |
| Lysozyme C | 0.32 | 0.04 - 0.55 | 0.03 |
| Pigment epithelium-derived factor | 0.29 | 0.01 - 0.53 | 0.04 |
| Zinc-alpha-2-glycoprotein | 0.32 | 0.04 - 0.55 | 0.03 |
| DBP | Cystatin-C | 0.35 | 0.08 - 0.58 | 0.01 |
| Lysozyme C | 0.29 | 0.01 - 0.53 | 0.04 |
| Metalloproteinase inhibitor 2 | -0.31 | -0.54 - -0.037 | 0.03 |
| Tenascin-X | 0.3 | 0.03 - 0.54 | 0.03 |
| Zinc-alpha-2-glycoprotein | 0.3 | 0.02 - 0.53 | 0.04 |
| Number of pregnancy | Adipocyte plasma membrane-associated protein | 0.42 | 0.16 - 0.62 | 0.003 |
| Alpha-2-macroglobulin | -0.31 | -0.54 - -0.03 | 0.03 |
| Apolipoprotein C-I | 0.32 | 0.04 - 0.55 | 0.03 |
| Apolipoprotein C-III | 0.35 | 0.08 - 0.57 | 0.01 |
| Beta-Ala-His dipeptidase | 0.28 | 0.007 - 0.52 | 0.047 |
| Hemopexin | 0.3 | 0.02 - 0.53 | 0.04 |
| Hyaluronan-binding protein 2 | 0.29 | 0.02 - 0.53 | 0.04 |
| Metalloproteinase inhibitor 2 | -0.35 | -0.58 - -0.08 | 0.01 |
| Phosphatidylinositol-glycan-specific phospholipase D | 0.4 | 0.14 - 0.61 | 0.004 |
| Pigment epithelium-derived factor | 0.28 | 0.006 - 0.52 | 0.048 |
| Pregnancy zone protein | 0.31 | 0.04 - 0.55 | 0.03 |
| Vitamin K-dependent protein S | 0.31 | 0.04- 0.54 | 0.03 |
| Number of birth | Adipocyte plasma membrane-associated protein | 0.29 | 0.02 - 0.53 | 0.04 |
| Attractin | 0.39 | 0.13 - 0.60 | 0.005 |
| Ceruloplasmin | 0.28 | 0.004 - 0.52 | 0.049 |
| Complement C1r subcomponent-like protein | 0.34 | 0.06 - 0.56 | 0.02 |
| Complement C3 | 0.32 | 0.05 - 0.55 | 0.02 |
| Complement C5 | 0.32 | 0.04 - 0.55 | 0.03 |
| Complement component C9 | 0.29 | 0.008 - 0.52 | 0.047 |
| Fibronectin | -0.36 | -0.58 - -0.094 | 0.01 |
| Heparin cofactor 2 | 0.37 | 0.10 - 0.59 | 0.009 |
| Plasma serine protease inhibitor | -0.35 | -0.57 - -0.08 | 0.01 |
| Pregnancy zone protein | 0.47 | 0.22 - 0.66 | <0.001 |
| Vitamin K-dependent protein S | 0.37 | 0.10 - 0.59 | 0.009 |
| Proteinuria | Alpha-1B-glycoprotein\_VAR\_018369 | 0.31 | 0.04 - 0.54 | 0.03 |
| Complement C1q subcomponent subunit B | 0.31 | 0.03 - 0.54 | 0.03 |
| Lysozyme C | 0.34 | 0.07 - 0.57 | 0.02 |
| Serum albumin | 0.49 | 0.25 - 0.68 | <0.001 |
| Zinc-alpha-2-glycoprotein | 0.32 | 0.05 - 0.55 | 0.02 |
| Erythrocytes | Apolipoprotein L1 | 0.34 | 0.06 - 0.56 | 0.02 |
| Cholinesterase | 0.41 | 0.15 - 0.62 | 0.003 |
| Hemopexin | 0.3 | 0.03 - 0.54 | 0.03 |
| Tenascin-X | 0.29 | 0.01 - 0.52 | 0.04 |
| Vitamin K-dependent protein S | 0.28 | 0.002 - 0.52 | 0.049 |
| Hemoglobin | Carbonic anhydrase 1 | 0.32 | 0.05 - 0.55 | 0.02 |
| Lysozyme C | -0.36 | -0.58 - -0.09 | 0.01 |
| Platelet count | Alpha-2-macroglobulin | -0.32 | -0.55 - -0.05 | 0.02 |
| Beta-Ala-His dipeptidase | 0.34 | 0.07 - 0.56 | 0.02 |
| Carbonic anhydrase 1 | -0.29 | -0.53 - -0.02 | 0.04 |
| Ceruloplasmin | 0.38 | 0.11 - 0.59 | 0.007 |
| Coagulation factor XII | 0.39 | 0.13 - 0.60 | 0.005 |
| Complement C1q subcomponent subunit B | -0.35 | -0.57 - -0.08 | 0.01 |
| Complement C3 | 0.35 | 0.08 - 0.57 | 0.01 |
| Complement C5 | 0.42 | 0.17 - 0.63 | 0.002 |
| Complement component C9 | 0.38 | 0.12 - 0.60 | 0.006 |
| Complement factor I | 0.28 | 0.004 - 0.52 | 0.047 |
| Fetuin-B | 0.56 | 0.33 - 0.72 | <0.001 |
| Heparin cofactor 2 | 0.4 | 0.14 - 0.61 | 0.004 |
| Hyaluronan-binding protein 2 | 0.33 | 0.05 - 0.56 | 0.02 |
| Leucine-rich alpha-2-glycoprotein | 0.37 | 0.10 - 0.59 | 0.008 |
| Phosphatidylinositol-glycan-specific phospholipase D | 0.29 | 0.02 - 0.53 | 0.04 |
| Plasma protease C1 inhibitor | -0.38 | -0.60 - -0.12 | 0.006 |
| Pregnancy zone protein | 0.42 | 0.16 - 0.63 | 0.002 |
| Serotransferrin | 0.34 | 0.07 - 0.56 | 0.02 |
| Serum albumin | -0.54 | -0.71 - -0.31 | <0.001 |
| Thrombospondin-1 | 0.45 | 0.19 - 0.65 | 0.001 |
| Vitronectin | 0.3 | 0.02 -0.53 | 0.03 |
| ALT | Afamin | -0.34 | -0.56 - -0.07 | 0.02 |
| Alpha-1-acid glycoprotein 1 | 0.34 | 0.07 - 0.57 | 0.02 |
| Alpha-2-macroglobulin | 0.37 | 0.10 - 0.59 | 0.008 |
| Beta-2-glycoprotein 1 | -0.31 | -0.55 - -0.04 | 0.03 |
| Complement C3 | -0.42 | -0.62 - -0.16 | 0.003 |
| Complement factor B | -0.29 | -0.52 - -0.009 | 0.04 |
| Complement factor I | -0.38 | -0.60 - -0.12 | 0.006 |
| Heparin cofactor 2 | -0.41 | -0.62 - -0.15 | 0.003 |
| Hyaluronan-binding protein 2 | -0.35 | -0.57 - -0.08 | 0.01 |
| Plasma serine protease inhibitor | 0.34 | 0.07 - 0.56 | 0.02 |
| Prothrombin | -0.29 | -0.52 - -0.01 | 0.04 |
| Serotransferrin | -0.35 | -0.58 - -0.09 | 0.01 |
| Vitamin K-dependent protein S | -0.29 | -0.52--0.009 | 0.04 |
| Vitronectin | -0.37 | -0.59 - -0.10 | 0.008 |
| AST | Alpha-2-macroglobulin | 0.48 | 0.23 - 0.67 | <0.001 |
| Complement C3 | -0.4 | -0.61 - -0.14 | 0.004 |
| Complement factor I | -0.31 | -0.54 - -0.03 | 0.03 |
| Hemopexin | -0.31 | -0.54 - -0.03 | 0.03 |
| Heparin cofactor 2 | -0.36 | -0.58 - -0.09 | 0.01 |
| Metalloproteinase inhibitor 2 | -0.4 | -0.61 - -0.14 | 0.004 |
| Pigment epithelium-derived factor | -0.37 | -0.59 - -0.10 | 0.008 |
| Plasma serine protease inhibitor | 0.35 | 0.08 - 0.57 | 0.01 |
| Serum albumin | 0.42 | 0.17 - 0.63 | 0.002 |
| Vitronectin | -0.33 | -0.56 - -0.05 | 0.02 |
| LDH | Alpha-1B-glycoprotein\_VAR\_018369 | 0.3 | 0.02 - 0.53 | 0.04 |
| Apolipoprotein A-IV | -0.3 | -0.53 - -0.02 | 0.04 |
| Plasma serine protease inhibitor | 0.4 | 0.14 - 0.61 | 0.004 |
| Creatinin | Alpha-2-macroglobulin | 0.39 | 0.13 - 0.60 | 0.005 |
| Plasma serine protease inhibitor | 0.32 | 0.05 - 0.55 | 0.02 |
| Serum albumin | 0.35 | 0.08 - 0.57 | 0.01 |
| PlGF | L-selectin | -0.34 | -0.57 - -0.07 | 0.01 |
| Lysozyme C | -0.34 | -0.57 - -0.07 | 0.02 |
| Retinol-binding protein 4 | -0.3 | -0.53 - -0.02 | 0.04 |
| sFlt | Apolipoprotein M | 0.3 | 0.03 - 0.53 | 0.03 |
| Complement C1q subcomponent subunit B | 0.31 | 0.04 - 0.54 | 0.03 |
| Serum albumin | 0.33 | 0.06 - 0.56 | 0.02 |
| sFlt/PlGF | Alpha-1B-glycoprotein\_VAR\_018369 | 0.37 | 0.10 - 0.59 | 0.008 |
| Alpha-2-HS-glycoprotein | 0.3 | 0.03 - 0.53 | 0.03 |
| Apolipoprotein M | 0.32 | 0.04 - 0.55 | 0.03 |
| Lysozyme C | 0.29 | 0.02 - 0.53 | 0.04 |
| Serum albumin | 0.32 | 0.05 - 0.55 | 0.02 |
| Thyroxine-binding globulin | 0.31 | 0.03 - 0.54 | 0.03 |
| UtA-PI, mean value | Complement C1q subcomponent subunit B | 0.29 | 0.01 - 0.53 | 0.04 |
| Leucine-rich alpha-2-glycoprotein | -0.34 | -0.56 - -0.07 | 0.02 |
| Retinol-binding protein 4 | 0.29 | 0.01 - 0.53 | 0.04 |
| Serum albumin | 0.42 | 0.16 - 0.62 | 0.003 |
| Zinc-alpha-2-glycoprotein | 0.29 | 0.01 - 0.53 | 0.04 |
| PI in umbilical artery | Pigment epithelium-derived factor | 0.31 | 0.03 - 0.54 | 0.03 |
| Retinol-binding protein 4 | 0.38 | 0.12 - 0.60 | 0.006 |
| Zinc-alpha-2-glycoprotein | 0.35 | 0.08 - 0.57 | 0.01 |
| PI in cerebral arteria, mean value | Apolipoprotein M | -0.3 | -0.54 - -0.03 | 0.03 |
| Attractin | -0.42 | -0.62 - -0.16 | 0.003 |
| Beta-Ala-His dipeptidase | -0.34 | -0.57 - -0.07 | 0.02 |
| Serotransferrin | -0.31 | -0.54 - -0.03 | 0.03 |
| Cerebroplacental ratio | Apolipoprotein L1 | -0.3 | -0.53 - -0.03 | 0.03 |
| Apolipoprotein M | -0.33 | -0.56 - -0.06 | 0.02 |
| Beta-Ala-His dipeptidase | -0.35 | -0.57 - -0.08 | 0.01 |
| L-selectin | -0.43 | -0.63 - -0.17 | 0.002 |
| Thrombospondin-1 | -0.29 | -0.52 - -0.01 | 0.04 |
| PE onset | Complement C1q subcomponent subunit B | -0.29 | -0.52 - -0.008 | 0.045 |
| Metalloproteinase inhibitor 2 | 0.34 | 0.07 - 0.56 | 0.02 |
| Serum albumin | -0.41 | -0.62 - -0.15 | 0.003 |
| Tenascin-X | -0.32 | -0.55 - -0.04 | 0.03 |
| Zinc-alpha-2-glycoprotein | -0.36 | -0.58 - -0.09 | 0.01 |
| Gestational age at birth | Leucine-rich alpha-2-glycoprotein | 0.41 | 0.15 - 0.62 | 0.003 |
| Metalloproteinase inhibitor 2 | 0.31 | 0.03 - 0.54 | 0.03 |
| Retinol-binding protein 4 | -0.38 | -0.60 - -0.12 | 0.006 |
| Serum albumin | -0.36 | -0.58 - -0.09 | 0.01 |
| Newborn mass | Metalloproteinase inhibitor 2 | 0.46 | 0.20 - 0.65 | 0.001 |
| Plasma serine protease inhibitor | -0.28 | -0.52 - -0.003 | 0.048 |
| Serum albumin | -0.37 | -0.59 - -0.10 | 0.009 |
| Newborn length | Attractin | 0.32 | 0.05-0.55 | 0.02 |
| Ceruloplasmin | 0.34 | 0.07 - 0.56 | 0.02 |
| Coagulation factor XII | 0.29 | 0.007 - 0.52 | 0.045 |
| Fetuin-B | 0.31 | 0.04 - 0.54 | 0.03 |
| Inter-alpha-trypsin inhibitor heavy chain H2 | -0.29 | -0.53 - -0.01 | 0.04 |
| Metalloproteinase inhibitor 2 | 0.37 | 0.10-0.59 | 0.008 |
| Pregnancy zone protein | 0.3 | 0.02 - 0.53 | 0.04 |
| Serotransferrin | 0.29 | 0.01 - 0.53 | 0.04 |
| Serum albumin | -0.34 | -0.56 - -0.06 | 0.02 |
| Apgar score, 1 minute | Cystatin-C | -0.36 | -0.58 - -0.09 | 0.01 |
| Plasma serine protease inhibitor | -0.32 | -0.55 - -0.05 | 0.02 |
| Tenascin-X | -0.39 | -0.60 - -0.13 | 0.005 |
| Apgar score, 5 minutes | Complement C1s subcomponent | -0.32 | -0.55 - -0.04 | 0.03 |
| Plasma serine protease inhibitor | -0.33 | -0.56 - -0.06 | 0.02 |
| Tenascin-X | -0.36 | -0.58 - -0.10 | 0.01 |

Table S5. Transition list and parameters used to acquire serum samples in this study. Liquid chromatography - multiple reaction monitoring mass spectrometry (LC-MRM-MS) was performed using QTRAP SCIEX6500+ mass spectrometer (SCIEX, Canada). The BAK 125 kit (MRM Proteomics Inc, Montreal, Canada) was used to quantify 125 proteins by measuring the concentration of one surrogate proteotypic peptide for each protein. All 125 peptides are measured within a single LC-MRM MS run. The observed ratio of the peak areas for the light peptide vs. the fixed-concentration SIS peptide were used to calculate the concentration of the endogenous peptide in serum.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q1 mass** | **Q3 mass** | **RT** | **Peptide ID** | **DP** | **CE** |
| 788.898 | 681.832 | 23.54 | 78 kDa glucose-regulated protein.ITPSYVAFTPEGER.P11021.y12++.heavy | 20 | 32 |
| 783.89 | 676.83 | 23.54 | 78 kDa glucose-regulated protein.ITPSYVAFTPEGER.P11021.y12++.light | 20 | 32 |
| 560.3 | 893.424 | 15.3 | Adipocyte plasma membrane-associated protein.LLEYDTVTR.Q9HDC9.y7.heavy | 20 | 23 |
| 555.295 | 883.42 | 15.3 | Adipocyte plasma membrane-associated protein.LLEYDTVTR.Q9HDC9.y7.light | 20 | 23 |
| 591.273 | 756.329 | 8.1 | Adiponectin.IFYNQQNHYDGSTGK.+3y13+2.light | 60 | 26 |
| 593.939 | 760.34 | 8.28 | Adiponectin.IFYNQQNHYDGSTGK.Q15848.y13++.heavy | 60 | 23 |
| 567.764 | 833.428 | 19.83 | Afamin.DADPDTFFAK.P43652.y7.heavy | 20 | 27 |
| 563.764 | 825.428 | 19.83 | Afamin.DADPDTFFAK.P43652.y7.light | 20 | 27 |
| 572.962 | 708.877 | 20.7 | Alpha-1-acid glycoprotein 1.NWGLSVYADKPETTK.P02763.y13++.heavy | 20 | 23 |
| 570.295 | 704.877 | 20.7 | Alpha-1-acid glycoprotein 1.NWGLSVYADKPETTK.P02763.y13++.light | 20 | 23 |
| 535.305 | 252.18 | 24.03 | Alpha-1-antichymotrypsin.EIGELYLPK.P01011.y2.heavy | 20 | 24 |
| 531.305 | 244.18 | 24.03 | Alpha-1-antichymotrypsin.EIGELYLPK.P01011.y2.light | 20 | 24 |
| 559.813 | 805.419 | 20.1 | Alpha-1-antitrypsin .LSITGTYDLK.PEP2013073114.2.y7.heavy | 20 | 35 |
| 555.813 | 797.419 | 20.1 | Alpha-1-antitrypsin .LSITGTYDLK.PEP2013073114.2.y7.light | 20 | 35 |
| 623.334 | 243.134 | 34.3 | Alpha-1B-glycoprotein.LETPDFQLFK.P04217.b2.heavy | 20 | 31 |
| 619.334 | 243.134 | 34.3 | Alpha-1B-glycoprotein.LETPDFQLFK.P04217.b2.light | 20 | 31 |
| 660.854 | 542.257 | 7 | Alpha-2-antiplasmin.LGNQEPGGQTALK.+2b5.heavy | 60 | 31.2 |
| 656.846 | 542.257 | 7 | Alpha-2-antiplasmin.LGNQEPGGQTALK.+2b5.light | 60 | 31.2 |
| 411.237 | 587.364 | 13.32 | Alpha-2-HS-glycoprotein.FSVVYAK.P02765.y5.heavy | 20 | 19 |
| 407.229 | 579.349 | 13.32 | Alpha-2-HS-glycoprotein.FSVVYAK.P02765.y5.light | 20 | 19 |
| 633.33 | 861.445 | 16 | Alpha-2-macroglobulin.AIGYLNTGYQR.P01023.y7.heavy | 20 | 31 |
| 628.33 | 851.445 | 16 | Alpha-2-macroglobulin.AIGYLNTGYQR.P01023.y7.light | 20 | 31 |
| 439.879 | 487.745 | 17.72 | Antithrombin-III.DDLYVSDAFHK.P01008.y8++.heavy | 20 | 19 |
| 437.21 | 483.74 | 17.72 | Antithrombin-III.DDLYVSDAFHK.P01008.y8++.light | 20 | 19 |
| 408.551 | 576.803 | 5.43 | Apolipoprotein A-I.ATEHLSTLSEK.P02647.y10++.heavy | 20 | 21 |
| 405.88 | 572.8 | 5.43 | Apolipoprotein A-I.ATEHLSTLSEK.P02647.y10++.light | 20 | 21 |
| 475.294 | 478.348 | 18 | Apolipoprotein A-II .EQLTPLIK.PEP20130306.2.y4.heavy | 20 | 23 |
| 471.295 | 470.348 | 18 | Apolipoprotein A-II .EQLTPLIK.PEP20130306.2.y4.light | 20 | 23 |
| 708.367 | 300.155 | 16.11 | Apolipoprotein A-IV.LGEVNTYAGDLQK.P06727.b3.heavy | 40 | 35 |
| 704.36 | 300.155 | 16.11 | Apolipoprotein A-IV.LGEVNTYAGDLQK.P06727.b3.light | 40 | 35 |
| 528.297 | 454.763 | 25.2 | Apolipoprotein B-100.FPEVDVLTK.P04114.y8++.heavy | 20 | 28 |
| 524.29 | 450.763 | 25.2 | Apolipoprotein B-100.FPEVDVLTK.P04114.y8++.light | 20 | 28 |
| 605.288 | 894.445 | 23.86 | Apolipoprotein C-I.EWFSETFQK.P02654.y7.heavy | 20 | 29 |
| 601.28 | 886.43 | 23.86 | Apolipoprotein C-I.EWFSETFQK.P02654.y7.light | 20 | 29 |
| 522.279 | 265.118 | 13.95 | Apolipoprotein C-II.TYLPAVDEK.P02655.b2.heavy | 40 | 23 |
| 518.27 | 265.118 | 13.95 | Apolipoprotein C-II.TYLPAVDEK.P02655.b2.light | 40 | 23 |
| 602.809 | 244.108 | 27.25 | Apolipoprotein C-III.GWVTDGFSSLK.P02656.b2.heavy | 40 | 27 |
| 598.809 | 244.108 | 27.25 | Apolipoprotein C-III.GWVTDGFSSLK.P02656.b2.light | 40 | 27 |
| 541.808 | 497.308 | 18.97 | Apolipoprotein C-IV.ELLETVVNR.P55056.y4.heavy | 40 | 22 |
| 536.808 | 487.308 | 18.97 | Apolipoprotein C-IV.ELLETVVNR.P55056.y4.light | 40 | 27 |
| 441.258 | 669.356 | 6.6 | Apolipoprotein D .VLNQELR.PEP2013021305.2.y5.heavy | 40 | 40 |
| 436.258 | 659.356 | 6.6 | Apolipoprotein D .VLNQELR.PEP2013021305.2.y5.light | 40 | 40 |
| 489.74 | 404.732 | 11.85 | Apolipoprotein E.LGPLVEQGR.P02649.y7++.heavy | 20 | 23 |
| 484.78 | 399.732 | 11.85 | Apolipoprotein E.LGPLVEQGR.P02649.y7++.light | 20 | 23 |
| 477.256 | 783.397 | 4.4 | Apolipoprotein L1.VAQELEEK.O14791.y6.heavy | 20 | 22 |
| 473.249 | 775.397 | 4.4 | Apolipoprotein L1.VAQELEEK.O14791.y6.light | 20 | 23 |
| 414.255 | 609.396 | 20.89 | Apolipoprotein M.AFLLTPR.O95445.y5.heavy | 20 | 19 |
| 409.251 | 599.396 | 20.89 | Apolipoprotein M.AFLLTPR.O95445.y5.light | 20 | 19 |
| 658.361 | 720.449 | 21.5 | Apolipoprotein(a) .TPAYYPNAGLIK.PEP2014012820.2.y7.heavy | 20 | 25 |
| 654.35 | 712.43 | 21.5 | Apolipoprotein(a) .TPAYYPNAGLIK.PEP2014012820.2.y7.light | 20 | 25 |
| 448.764 | 710.418 | 6.44 | Attractin.SVNNVVVR.O75882.y6.heavy | 20 | 23 |
| 443.759 | 700.409 | 6.44 | Attractin.SVNNVVVR.O75882.y6.light | 20 | 23 |
| 516.772 | 761.382 | 5.61 | Beta-2-glycoprotein 1.ATVVYQGER.P02749.y6.heavy | 40 | 27 |
| 511.772 | 751.382 | 5.61 | Beta-2-glycoprotein 1.ATVVYQGER.P02749.y6.light | 40 | 27 |
| 624.36 | 578.38 | 23.63 | Beta-Ala-His dipeptidase.ALEQDLPVNIK.Q96KN2.y5.heavy | 40 | 27 |
| 620.36 | 570.38 | 23.63 | Beta-Ala-His dipeptidase.ALEQDLPVNIK.Q96KN2.y5.light | 40 | 27 |
| 363.229 | 451.266 | 13.3 | Biotinidase.SHLIIAQVAK.P43251.b4.heavy | 20 | 18 |
| 360.557 | 451.266 | 13.3 | Biotinidase.SHLIIAQVAK.P43251.b4.light | 20 | 18 |
| 643.833 | 228.134 | 6.97 | Cadherin-13.INENTGSVSVTR.P55290.b2.heavy | 20 | 31 |
| 638.83 | 228.134 | 6.97 | Cadherin-13.INENTGSVSVTR.P55290.b2.light | 20 | 31 |
| 489.81 | 766.46 | 22.94 | Carbonic anhydrase 1.VLDALQAIK.P00915.y7.heavy | 40 | 19 |
| 485.81 | 758.46 | 22.94 | Carbonic anhydrase 1.VLDALQAIK.P00915.y7.light | 40 | 19 |
| 302.185 | 267.673 | 14.6 | Carboxypeptidase B2.IAWHVIR.+3y4+2.heavy | 20 | 12.3 |
| 298.848 | 262.669 | 14.6 | Carboxypeptidase B2.IAWHVIR.+3y4+2.light | 20 | 12.3 |
| 448.745 | 712.362 | 5.58 | Cathelicidin antimicrobial peptide.AIDGINQR.P49913.y6.heavy | 40 | 22 |
| 443.745 | 702.362 | 5.58 | Cathelicidin antimicrobial peptide.AIDGINQR.P49913.y6.light | 40 | 22 |
| 407.871 | 467.26 | 6.6 | Cation-independent mannose-6-phosphate receptor.GHQAFDVGQPR.+3y4.heavy | 20 | 17.4 |
| 404.535 | 457.252 | 6.6 | Cation-independent mannose-6-phosphate receptor.GHQAFDVGQPR.+3y4.light | 20 | 17.4 |
| 381.237 | 549.313 | 4.87 | CD5 antigen-like.LVGGLHR.O43866.y5.heavy | 20 | 23 |
| 376.237 | 539.313 | 4.87 | CD5 antigen-like.LVGGLHR.O43866.y5.light | 20 | 23 |
| 396.88 | 456.743 | 4.85 | Ceruloplasmin.IYHSHIDAPK.P00450.y8++.heavy | 40 | 19 |
| 394.21 | 452.74 | 4.85 | Ceruloplasmin.IYHSHIDAPK.P00450.y8++.light | 40 | 19 |
| 604.314 | 931.472 | 13.01 | Cholinesterase.YLTLNTESTR.P06276.y8.heavy | 20 | 30 |
| 599.314 | 921.472 | 13.01 | Cholinesterase.YLTLNTESTR.P06276.y8.light | 20 | 30 |
| 649.827 | 385.207 | 15.11 | Clusterin.ELDESLQVAER.P10909.y3.heavy | 40 | 27 |
| 644.823 | 375.207 | 15.11 | Clusterin.ELDESLQVAER.P10909.y3.light | 40 | 27 |
| 536.824 | 702.417 | 29.4 | Coagulation factor IX.SALVLQYLR.P00740.y5.heavy | 40 | 27 |
| 531.82 | 692.417 | 29.4 | Coagulation factor IX.SALVLQYLR.P00740.y5.light | 40 | 27 |
| 607.272 | 997.462 | 8 | Coagulation factor V .SEAYNTFSER.PEP2013021902.2.y8.heavy | 20 | 27 |
| 602.272 | 987.462 | 8 | Coagulation factor V .SEAYNTFSER.PEP2013021902.2.y8.light | 20 | 27 |
| 378.542 | 442.237 | 5.3 | Coagulation factor VIII.LHPTHYSIR.P00451.y7++.heavy | 40 | 18 |
| 375.21 | 437.23 | 5.3 | Coagulation factor VIII.LHPTHYSIR.P00451.y7++.light | 40 | 18 |
| 452.25 | 533.271 | 13.8 | Coagulation factor X .TGIVSGFGR.PEP2013020903.2.y5.heavy | 60 | 30 |
| 447.25 | 523.271 | 13.8 | Coagulation factor X .TGIVSGFGR.PEP2013020903.2.y5.light | 60 | 30 |
| 469.253 | 340.702 | 6.51 | Coagulation factor XII.EQPPSLTR.P00748.y6++.heavy | 20 | 22 |
| 464.248 | 335.697 | 6.51 | Coagulation factor XII.EQPPSLTR.P00748.y6++.light | 20 | 22 |
| 388.221 | 591.313 | 8.84 | Complement C1q subcomponent subunit B.IAFSATR.P02746.y5.heavy | 20 | 19 |
| 383.221 | 581.313 | 8.84 | Complement C1q subcomponent subunit B.IAFSATR.P02746.y5.light | 20 | 19 |
| 547.797 | 819.46 | 20.4 | Complement C1q subcomponent subunit C.FQSVFTVTR.+2y7.heavy | 40 | 25.6 |
| 542.793 | 809.452 | 20.4 | Complement C1q subcomponent subunit C.FQSVFTVTR.+2y7.light | 40 | 25.6 |
| 263.841 | 310.205 | 11.8 | Complement C1r subcomponent.GLTLHLK.P00736.y5++.heavy | 20 | 10.5 |
| 261.175 | 306.205 | 11.8 | Complement C1r subcomponent.GLTLHLK.P00736.y5++.light | 20 | 10.5 |
| 332.183 | 448.237 | 5.1 | Complement C1r subcomponent-like protein.VVVHPDYR.+3y7+2.heavy | 20 | 13.8 |
| 328.847 | 443.233 | 5.1 | Complement C1r subcomponent-like protein.VVVHPDYR.+3y7+2.light | 20 | 13.8 |
| 644.333 | 216.098 | 23.1 | Complement C1s subcomponent.TNFDNDIALVR.P09871.b2.heavy | 60 | 32 |
| 639.333 | 216.098 | 23.1 | Complement C1s subcomponent.TNFDNDIALVR.P09871.b2.light | 60 | 32 |
| 360.87 | 469.26 | 11.5 | Complement C2.HAFILQDTK.P06681.b4.heavy | 20 | 23 |
| 358.2 | 469.26 | 11.5 | Complement C2.HAFILQDTK.P06681.b4.light | 20 | 23 |
| 505.785 | 739.408 | 10.92 | Complement C3.TGLQEVEVK.P01024.y6.heavy | 20 | 27 |
| 501.785 | 731.408 | 10.92 | Complement C3.TGLQEVEVK.P01024.y6.light | 20 | 27 |
| 459.762 | 672.381 | 23.2 | Complement C5.VFQFLEK.+2y5.heavy | 20 | 21.3 |
| 455.755 | 664.366 | 23.2 | Complement C5.VFQFLEK.+2y5.light | 20 | 21.3 |
| 756.371 | 227.175 | 23.3 | Complement component C7 .LIDQYGTHYLQSGSLGGEYR.PEP20120919025.3.b2.heavy | 60 | 26.7 |
| 753.038 | 227.175 | 23.3 | Complement component C7 .LIDQYGTHYLQSGSLGGEYR.PEP20120919025.3.b2.light | 60 | 26.7 |
| 625.884 | 525.826 | 32.6 | Complement component C9.LSPIYNLVPVK.P02748.y9++.heavy | 20 | 27 |
| 621.884 | 521.826 | 32.6 | Complement component C9.LSPIYNLVPVK.P02748.y9++.light | 20 | 27 |
| 582.324 | 679.387 | 18.85 | Complement factor B.EELLPAQDIK.P00751.y6.heavy | 20 | 23 |
| 578.324 | 671.387 | 18.85 | Complement factor B.EELLPAQDIK.P00751.y6.light | 20 | 23 |
| 401.522 | 514.748 | 2.6 | Complement factor H.SSQESYAHGTK.+3y9+2.heavy | 20 | 17.1 |
| 398.851 | 510.741 | 2.6 | Complement factor H.SSQESYAHGTK.+3y9+2.light | 20 | 17.1 |
| 600.829 | 954.514 | 30.2 | Complement factor I.VFSLQWGEVK.P05156.y8.heavy | 20 | 23 |
| 596.829 | 946.514 | 30.2 | Complement factor I.VFSLQWGEVK.P05156.y8.light | 20 | 23 |
| 886.969 | 252.18 | 34 | Corticosteroid-binding globulin.WSAGLTSSQVDLYIPK.P08185.y2.heavy | 20 | 39 |
| 882.962 | 244.166 | 34 | Corticosteroid-binding globulin.WSAGLTSSQVDLYIPK.P08185.y2.light | 20 | 39 |
| 617.813 | 300.155 | 21.5 | Cystatin-C.ALDFAVGEYNK.+2b3.heavy | 20 | 29.1 |
| 613.806 | 300.155 | 21.5 | Cystatin-C.ALDFAVGEYNK.+2b3.light | 20 | 29.1 |
| 521.321 | 827.502 | 33.2 | Endothelial protein C receptor.TLAFPLTIR.Q9UNN8.y7.heavy | 20 | 23 |
| 516.321 | 817.502 | 33.2 | Endothelial protein C receptor.TLAFPLTIR.Q9UNN8.y7.light | 20 | 23 |
| 460.807 | 708.453 | 31.4 | Fetuin-B.LVVLPFPK.Q9UGM5.y6.heavy | 20 | 19 |
| 456.807 | 700.453 | 31.4 | Fetuin-B.LVVLPFPK.Q9UGM5.y6.light | 20 | 19 |
| 549.93 | 516.281 | 8.7 | Fibrinogen alpha chain .ESSSHHPGIAEFPSR.PEP9999032685.3.y4.heavy | 20 | 31 |
| 546.597 | 506.281 | 8.7 | Fibrinogen alpha chain .ESSSHHPGIAEFPSR.PEP9999032685.3.y4.light | 20 | 31 |
| 713.036 | 764.376 | 25.4 | Fibrinogen beta chain.HQLYIDETVNSNIPTNLR.P02675.b13++.heavy | 20 | 19 |
| 709.703 | 764.376 | 25.4 | Fibrinogen beta chain.HQLYIDETVNSNIPTNLR.P02675.b13++.light | 20 | 19 |
| 501.256 | 605.327 | 15.5 | Fibrinogen gamma chain.YEASILTHDSSIR.P02679.y11++.heavy | 20 | 23 |
| 497.92 | 600.32 | 15.5 | Fibrinogen gamma chain.YEASILTHDSSIR.P02679.y11++.light | 20 | 23 |
| 625.303 | 744.392 | 11.5 | Fibronectin.HTSVQTTSSGSGPFTDVR.P02751.y6.heavy | 40 | 23 |
| 621.969 | 734.392 | 11.5 | Fibronectin.HTSVQTTSSGSGPFTDVR.P02751.y6.light | 40 | 23 |
| 594.782 | 704.36 | 19.82 | Fibulin-1.TGYYFDGISR.P23142.y6.heavy | 20 | 27 |
| 589.782 | 694.36 | 19.82 | Fibulin-1.TGYYFDGISR.P23142.y6.light | 20 | 27 |
| 682.4 | 878.544 | 35.2 | Galectin-3-binding protein.SDLAVPSELALLK.Q08380.y8.heavy | 20 | 28 |
| 678.4 | 870.544 | 35.2 | Galectin-3-binding protein.SDLAVPSELALLK.Q08380.y8.light | 20 | 28 |
| 664.359 | 200.103 | 22.2 | Gelsolin.AGALNSNDAFVLK.P06396.b3.heavy | 40 | 35 |
| 660.359 | 200.103 | 22.2 | Gelsolin.AGALNSNDAFVLK.P06396.b3.light | 40 | 35 |
| 781.912 | 653.361 | 22.66 | Glutathione peroxidase 3.QEPGENSEILPTLK.P22352.y12++.heavy | 20 | 35 |
| 777.912 | 649.361 | 22.66 | Glutathione peroxidase 3.QEPGENSEILPTLK.P22352.y12++.light | 20 | 35 |
| 649.877 | 500.302 | 31.44 | Haptoglobin.DIAPTLTLYVGK.P00738.y9++.heavy | 20 | 24 |
| 645.877 | 496.302 | 31.44 | Haptoglobin.DIAPTLTLYVGK.P00738.y9++.light | 20 | 24 |
| 513.92 | 498.29 | 10.1 | Hemoglobin subunit alpha.VGAHAGEYGAEALER.P69905.y4.heavy | 20 | 24 |
| 510.59 | 488.29 | 10.1 | Hemoglobin subunit alpha.VGAHAGEYGAEALER.P69905.y4.light | 20 | 24 |
| 615.811 | 485.255 | 26.3 | Hemopexin.NFPSPVDAAFR.P02790.y9++.heavy | 40 | 23 |
| 610.811 | 480.255 | 26.3 | Hemopexin.NFPSPVDAAFR.P02790.y9++.light | 40 | 23 |
| 519.795 | 824.451 | 13.2 | Heparin cofactor 2.TLEAQLTPR.P05546.y7.heavy | 20 | 27 |
| 514.795 | 814.451 | 13.2 | Heparin cofactor 2.TLEAQLTPR.P05546.y7.light | 20 | 27 |
| 599.827 | 901.477 | 27.4 | Hepatocyte growth factor-like protein.SPLNDFQVLR.P26927.y7.heavy | 20 | 32 |
| 594.827 | 891.477 | 27.4 | Hepatocyte growth factor-like protein.SPLNDFQVLR.P26927.y7.light | 20 | 32 |
| 497.787 | 796.429 | 12.64 | Hyaluronan-binding protein 2.VVLGDQDLK.Q14520.y7.heavy | 20 | 22 |
| 493.787 | 788.429 | 12.64 | Hyaluronan-binding protein 2.VVLGDQDLK.Q14520.y7.light | 20 | 22 |
| 393.231 | 291.186 | 19.4 | Ig mu chain C region.GFPSVLR.P01871.y5++.heavy | 20 | 17 |
| 388.227 | 286.181 | 19.4 | Ig mu chain C region.GFPSVLR.P01871.y5++.light | 20 | 17 |
| 559.935 | 737.354 | 15.94 | Insulin-like growth factor I.GFYFNKPTGYGSSSR.P05019.y13++.heavy | 20 | 23 |
| 556.602 | 732.354 | 15.94 | Insulin-like growth factor I.GFYFNKPTGYGSSSR.P05019.y13++.light | 20 | 23 |
| 419.25 | 566.34 | 5.14 | Inter-alpha-trypsin inhibitor heavy chain H2.SLAPTAAAK.P19823.y6.heavy | 20 | 19 |
| 415.25 | 558.34 | 5.14 | Inter-alpha-trypsin inhibitor heavy chain H2.SLAPTAAAK.P19823.y6.light | 20 | 19 |
| 544.844 | 862.513 | 29.5 | Intercellular adhesion molecule 1.LLGIETPLPK.P05362.y8.heavy | 40 | 26 |
| 540.844 | 854.513 | 29.5 | Intercellular adhesion molecule 1.LLGIETPLPK.P05362.y8.light | 40 | 26 |
| 397.219 | 568.318 | 6.83 | Interleukin-10.AHVNSLGENLK.P22301.y5.heavy | 20 | 17 |
| 394.55 | 560.3 | 6.83 | Interleukin-10.AHVNSLGENLK.P22301.y5.light | 20 | 17 |
| 431.919 | 597.84 | 20.1 | Kallistatin.VGSALFLSHNLK.P29622.y11++.heavy | 20 | 21 |
| 429.252 | 593.84 | 20.1 | Kallistatin.VGSALFLSHNLK.P29622.y11++.light | 20 | 21 |
| 636.807 | 201.123 | 7.4 | Keratin type I cytoskeletal 10.SLLEGEGSSGGGGR.P13645.b2.heavy | 20 | 35 |
| 631.802 | 201.124 | 7.4 | Keratin type I cytoskeletal 10.SLLEGEGSSGGGGR.P13645.b2.light | 20 | 35 |
| 602.316 | 293.113 | 16.69 | Keratin,type II cytoskeletal.YEELQVTVGR.PEP20121106047.2.b2.heavy | 20 | 30 |
| 597.312 | 293.114 | 16.69 | Keratin,type II cytoskeletal.YEELQVTVGR.PEP20121106047.2.b2.light | 20 | 30 |
| 630.306 | 1059.487 | 20 | Kininogen-1 .TVGSDTFYSFK.PEP2015082124.2.y9.heavy | 20 | 23 |
| 626.306 | 1051.487 | 20 | Kininogen-1 .TVGSDTFYSFK.PEP2015082124.2.y9.light | 20 | 23 |
| 595.345 | 735.402 | 30.36 | Leucine-rich alpha-2-glycoprotein.DLLLPQPDLR.P02750.y6.heavy | 20 | 24 |
| 590.345 | 725.402 | 30.36 | Leucine-rich alpha-2-glycoprotein.DLLLPQPDLR.P02750.y6.light | 20 | 24 |
| 629.336 | 930.447 | 33.8 | Lipopolysaccharide-binding protein.ITLPDFTGDLR.P18428.y8.heavy | 20 | 27 |
| 624.336 | 920.447 | 33.8 | Lipopolysaccharide-binding protein.ITLPDFTGDLR.P18428.y8.light | 20 | 27 |
| 501.766 | 802.444 | 13.3 | L-selectin.AEIEYLEK.P14151.y6.heavy | 40 | 19 |
| 497.76 | 794.43 | 13.3 | L-selectin.AEIEYLEK.P14151.y6.light | 40 | 19 |
| 399.718 | 541.312 | 19.87 | Lysozyme C.AWVAWR.P61626.y4.heavy | 20 | 19 |
| 394.714 | 531.303 | 19.87 | Lysozyme C.AWVAWR.P61626.y4.light | 20 | 19 |
| 820.924 | 258.145 | 26.58 | Mannan-binding lectin serine protease 1.TGVITSPDFPNPYPK.P48740.b3.heavy | 60 | 40 |
| 816.917 | 258.145 | 26.58 | Mannan-binding lectin serine protease 1.TGVITSPDFPNPYPK.P48740.b3.light | 60 | 40 |
| 499.261 | 585.338 | 24.8 | Mannan-binding lectin serine protease 2.WPEPVFGR.O00187.y5.heavy | 20 | 27 |
| 494.256 | 575.329 | 24.8 | Mannan-binding lectin serine protease 2.WPEPVFGR.O00187.y5.light | 20 | 27 |
| 401.233 | 283.186 | 10.3 | Metalloproteinase inhibitor 2.EYLIAGK.+2y3.heavy | 20 | 18.5 |
| 397.226 | 275.171 | 10.3 | Metalloproteinase inhibitor 2.EYLIAGK.+2y3.light | 20 | 18.5 |
| 434.263 | 544.814 | 17.5 | Myeloblastin.LVNVVLGAHNVR.P24158.y10++.heavy | 20 | 15 |
| 430.93 | 539.814 | 17.5 | Myeloblastin.LVNVVLGAHNVR.P24158.y10++.light | 20 | 15 |
| 398.568 | 476.777 | 8.4 | Paraoxonase(PON3).IQNVLSEKPR.S-100205-00004.Q15166.y8++.heavy | 20 | 19 |
| 395.235 | 471.777 | 8.4 | Paraoxonase(PON3).IQNVLSEKPR.S-100205-00004.Q15166.y8++.light | 20 | 19 |
| 435.76 | 700.41 | 26.13 | Peroxiredoxin-2.GLFIIDGK.P32119.y6.heavy | 20 | 14 |
| 431.76 | 692.41 | 26.13 | Peroxiredoxin-2.GLFIIDGK.P32119.y6.light | 20 | 14 |
| 495.287 | 498.327 | 20.74 | Phosphatidylinositol-glycan-specific phospholipase D.FGSSLITVR.P80108.y4.heavy | 40 | 23 |
| 490.282 | 488.319 | 20.74 | Phosphatidylinositol-glycan-specific phospholipase D.FGSSLITVR.P80108.y4.light | 40 | 23 |
| 669.333 | 519.758 | 8.87 | Phospholipid transfer protein.AVEPQLQEEER.P55058.y8++.heavy | 40 | 32 |
| 664.333 | 514.758 | 8.87 | Phospholipid transfer protein.AVEPQLQEEER.P55058.y8++.light | 40 | 35 |
| 696.351 | 1150.551 | 27.5 | Pigment epithelium-derived factor.LQSLFDSPDFSK.P36955.y10.heavy | 40 | 32 |
| 692.351 | 1142.551 | 27.5 | Pigment epithelium-derived factor.LQSLFDSPDFSK.P36955.y10.light | 40 | 32 |
| 598.358 | 920.581 | 32 | Plasma protease C1 inhibitor.FQPTLLTLPR.P05155.y8.heavy | 40 | 22 |
| 593.358 | 910.581 | 32 | Plasma protease C1 inhibitor.FQPTLLTLPR.P05155.y8.light | 40 | 22 |
| 586.296 | 501.243 | 35.1 | Plasma serine protease inhibi.AVVEVDESGTR.PEP9999032429.2.y9++.heavy | 20 | 23 |
| 581.296 | 496.243 | 35.1 | Plasma serine protease inhibi.AVVEVDESGTR.PEP9999032429.2.y9++.light | 20 | 23 |
| 443.258 | 261.16 | 17.5 | Plasminogen .LFLEPTR.PEP2014090309.2.b2.heavy | 20 | 27 |
| 438.254 | 261.16 | 17.5 | Plasminogen .LFLEPTR.PEP2014090309.2.b2.light | 20 | 27 |
| 557.311 | 512.292 | 7.2 | Plasminogen activator inhibit.VFQQVAQASK.PEP2014012801.2.y5.heavy | 20 | 23 |
| 553.3 | 504.28 | 7.2 | Plasminogen activator inhibit.VFQQVAQASK.PEP2014012801.2.y5.light | 20 | 23 |
| 556.326 | 669.402 | 17.8 | Pregnancy zone protein.ISEITNIVSK.+2y6.heavy | 20 | 26.1 |
| 552.319 | 661.388 | 17.8 | Pregnancy zone protein.ISEITNIVSK.+2y6.light | 20 | 26.1 |
| 485.271 | 815.416 | 11.47 | Protein AMBP.HHGPTITAK.+2b8.heavy | 40 | 22.6 |
| 481.264 | 815.416 | 11.47 | Protein AMBP.HHGPTITAK.+2b8.light | 40 | 22.6 |
| 443.25 | 657.38 | 22.81 | Protein S100-A9.DLQNFLK.P06702.y5.heavy | 20 | 19 |
| 439.25 | 649.38 | 22.81 | Protein S100-A9.DLQNFLK.P06702.y5.light | 20 | 14 |
| 640.83 | 702.418 | 32 | Protein Z-dependent protease inhibitor.ETSNFGFSLLR.Q9UK55.y6.heavy | 20 | 27 |
| 635.83 | 692.418 | 32 | Protein Z-dependent protease inhibitor.ETSNFGFSLLR.Q9UK55.y6.light | 20 | 27 |
| 602.808 | 720.355 | 23.64 | Prothrombin.ELLESYIDGR.P00734.y6.heavy | 60 | 26 |
| 597.808 | 710.355 | 23.64 | Prothrombin.ELLESYIDGR.P00734.y6.light | 60 | 26 |
| 603.824 | 857.497 | 33.3 | Retinol-binding protein 4.YWGVASFLQK.P02753.y8.heavy | 20 | 28 |
| 599.824 | 849.497 | 33.3 | Retinol-binding protein 4.YWGVASFLQK.P02753.y8.light | 20 | 28 |
| 493.756 | 743.418 | 13.53 | Serotransferrin.DGAGDVAFVK.P02787.y7.heavy | 60 | 23 |
| 489.756 | 735.418 | 13.53 | Serotransferrin.DGAGDVAFVK.P02787.y7.light | 60 | 23 |
| 579.319 | 226.164 | 18.74 | Serum albumin.LVNEVTEFAK.P02768.y2.heavy | 40 | 47 |
| 575.319 | 218.164 | 18.74 | Serum albumin.LVNEVTEFAK.P02768.y2.light | 40 | 47 |
| 947.466 | 878.497 | 32.5 | Serum paraoxonase\_arylesterase 1.IFFYDSENPPASEVLR.+2y8.heavy | 20 | 40 |
| 942.462 | 868.489 | 32.5 | Serum paraoxonase\_arylesterase 1.IFFYDSENPPASEVLR.+2y8.light | 20 | 40 |
| 345.886 | 405.242 | 20.13 | Serum paraoxonase\_lactonase 3.ILIGTVFHK.+3y7+2.heavy | 40 | 14.5 |
| 343.215 | 401.235 | 20.13 | Serum paraoxonase\_lactonase 3.ILIGTVFHK.+3y7+2.light | 40 | 14.5 |
| 477.261 | 594.325 | 18.8 | SPARC.LEAGDHPVELLAR.P09486.y11++.heavy | 20 | 21 |
| 473.928 | 589.325 | 18.8 | SPARC.LEAGDHPVELLAR.P09486.y11++.light | 20 | 21 |
| 531.261 | 813.398 | 11.58 | Tenascin.FTTDLDSPR.P24821.y7.heavy | 20 | 22 |
| 526.261 | 803.398 | 11.58 | Tenascin.FTTDLDSPR.P24821.y7.light | 20 | 22 |
| 728.408 | 227.176 | 27.76 | Tenascin-X.ILISGLEPSTPYR.P22105.b2.heavy | 20 | 36 |
| 723.408 | 227.176 | 27.76 | Tenascin-X.ILISGLEPSTPYR.P22105.b2.light | 20 | 36 |
| 441.768 | 498.292 | 19.07 | Thrombospondin-1.GTLLALER.P07996.y4.heavy | 20 | 25 |
| 436.768 | 488.292 | 19.07 | Thrombospondin-1.GTLLALER.P07996.y4.light | 20 | 25 |
| 418.899 | 526.296 | 22.6 | Thrombospondin-4.KPQDFLEELK.P35443.y4.heavy | 20 | 20 |
| 416.233 | 518.296 | 22.6 | Thrombospondin-4.KPQDFLEELK.P35443.y4.light | 20 | 20 |
| 292.179 | 352.713 | 6.6 | Thyroxine-binding globulin.AVLHIGEK.+3y6+2.heavy | 20 | 11.9 |
| 289.508 | 348.706 | 6.6 | Thyroxine-binding globulin.AVLHIGEK.+3y6+2.light | 20 | 11.9 |
| 549.79 | 788.439 | 19.27 | Tissue factor pathway inhibitor (isoform 1).FYYNSVIGK.P10646-1.y7.heavy | 40 | 24 |
| 545.79 | 780.439 | 19.27 | Tissue factor pathway inhibitor (isoform 1).FYYNSVIGK.P10646-1.y7.light | 40 | 24 |
| 511.766 | 824.388 | 3.5 | Tissue-type plasminogen activator.VVPGEEEQK.P00750.y7.heavy | 20 | 19 |
| 507.766 | 816.388 | 3.5 | Tissue-type plasminogen activator.VVPGEEEQK.P00750.y7.light | 20 | 19 |
| 561.623 | 739.885 | 21.13 | Transferrin receptor protein 1.GFVEPDHYVVVGAQR.P02786.y13++.heavy | 40 | 23 |
| 558.29 | 734.88 | 21.13 | Transferrin receptor protein 1.GFVEPDHYVVVGAQR.P02786.y13++.light | 40 | 23 |
| 459.59 | 616.86 | 25 | Transthyretin.GSPAINVAVHVFR.P02766.y11++.heavy | 20 | 18 |
| 456.26 | 611.86 | 25 | Transthyretin.GSPAINVAVHVFR.P02766.y11++.light | 20 | 18 |
| 584.327 | 853.487 | 10.9 | Vascular cell adhesion protein 1.NTVISVNPSTK.P19320.y8.heavy | 20 | 27 |
| 580.32 | 845.47 | 10.9 | Vascular cell adhesion protein 1.NTVISVNPSTK.P19320.y8.light | 20 | 27 |
| 489.244 | 641.313 | 7.2 | Vasorin .ESHVTLASPEETR.PEP20121106020.3.y5.heavy | 20 | 25 |
| 485.907 | 631.304 | 7.2 | Vasorin .ESHVTLASPEETR.PEP20121106020.3.y5.light | 20 | 25 |
| 604.819 | 846.471 | 23.1 | Vitamin K-dependent protein S.SFQTGLFTAAR.PEP20130215010.2.y8.heavy | 40 | 22 |
| 599.819 | 836.471 | 23.1 | Vitamin K-dependent protein S.SFQTGLFTAAR.PEP20130215010.2.y8.light | 40 | 22 |
| 716.83 | 657.335 | 22.71 | Vitronectin.FEDGVLDPDYPR.P04004.y5.heavy | 20 | 38 |
| 711.841 | 647.335 | 22.71 | Vitronectin.FEDGVLDPDYPR.P04004.y5.light | 20 | 38 |
| 895.983 | 1095.59 | 42 | Zinc-alpha-2-glycoprotein.EIPAWVPFDPAAQITK.P25311.y10.heavy | 20 | 40 |
| 891.983 | 1087.59 | 42 | Zinc-alpha-2-glycoprotein.EIPAWVPFDPAAQITK.P25311.y10.light | 20 | 40 |