**Table S3.5. Comparison of proteins present in Pre- and Post-Exercise BCs**

**Table S3.5A. Comparison of Proteins Found to Associate with Fe3O4 NPs Pre- and Post-exercise Across Individuals (UniProtKB Name) A: pre-exercise BC; B: post-exercise BC**

|  |
| --- |
| **Subjects** |
| 5A 5B 7A 7B 1A 1B 8A 8B 2A 2B 6A 6B |

|  |
| --- |
| **# of Proteins in Common** |
| 104 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Proteins Shared** |  |  |  |
| K2C1 | FHR2 | IGF2 | KNG1 |
| PON1 | CXCL7 | HV374 | FA11 |
| FA5 | TRFE | IBP4 | TETN |
| ACTB | KV320 | ITIH4 | VWF |
| HEMO | CYTC | PROS | APOA |
| C4BPA | LG3BP | KV108 | HV601 |
| FIBA | IGHA1 | FHR1 | CO3 |
| IBP3 | PCOC1 | PLMN | KV230 |
| C1QA | CO8A | C1QB | APOE |
| HPT | APOB | APOA2 | APOA4 |
| IGHG2 | PRG4 | APOC1 | LV151 |
| TTHY | FINC | FETUA | A1AT |
| LV319 | FIBG | CO4B | KVD11 |
| LV949 | HV315 | IGKC | KV315 |
| IGLC2 | FIBB | APOC2 | KLKB1 |
| PROP | IGHG4 | IGHG3 | KV224 |
| APOA1 | QSOX1 | ACTS | APOH |
| CO8B | FLNA | CD5L |  |
| C1S | VTNC | HGFL |  |
| FA12 | HV434 | KV105 |  |
| IGHM | IGHG1 | LV147 |  |
| LV310 | PEDF | IGJ |  |
| C1QC | KV117 | CFAH |  |
| HPTR | HGFA | C4BPB |  |
| IC1 | KV401 | CLUS |  |
| THRB | CFAD | APOC3 |  |
| HRG | TSP1 | HBB |  |
| MUCB | SEPP1 | IGLL5 |  |
| HV307 | ITA8B | ALS |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 1B 8A 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 1A 1B 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 1B 8A 8B 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 8A 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7B 1A 1B 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 1A 1B 8A 8B 2A 2B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 1B 8A 8B 2B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 1B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 1B 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1B 8A 8B 2A 2B 6B |  |  | | --- | | **Subjects** | | 5A 7A 7B 1A 1B 8A 2A 2B 6A | | | |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 3 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 3 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 2 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 | | | |  | | --- | | **Proteins Shared** | | CO9 |  |  | | --- | | **Proteins Shared** | | APOL1 |  |  | | --- | | **Proteins Shared** | | CBPN | | IGF1 | | K22E |  |  | | --- | | **Proteins Shared** | | KVD39 |  |  | | --- | | **Proteins Shared** | | A2MG |  |  | | --- | | **Proteins Shared** | | KV112 | | KV116 | | LV325 |  |  | | --- | | **Proteins Shared** | | HV551 |  |  | | --- | | **Proteins Shared** | | POLN\_SFV |  |  | | --- | | **Proteins Shared** | | HV309 |  |  | | --- | | **Proteins Shared** | | AMBP | | HV372 |  |  | | --- | | **Proteins Shared** | | HV364 |  |  | | --- | | **Proteins Shared** | | GELS | | |
| |  | | --- | | **Subjects** | | 5B 1A 1B 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7B 1A 1B 8A 8B 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7B 1A 1B 8A 8B 2B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1A 1B 2A 2B 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 1B 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 7B 1A 8A 8B 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 8A 8B 2A 2B |  |  | | --- | | **Subjects** | | 5B 7A 7B 8A 8B 2A 2B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7A 7B 1B 8A 8B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7B 1B 8B 2A 2B 6B |  |  | | --- | | **Subjects** | | 7B 1A 1B 8A 2A 2B 6A |  |  | | --- | | **Subjects** | | 5A 5B 7B 1A 8A 8B 2A |  |  | | --- | | **Subjects** | | 5A 5B 1A 1B 8A 8B 6B | | |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 | | | |  | | --- | | **Proteins Shared** | | ITIH2 |  |  | | --- | | **Proteins Shared** | | HV118 |  |  | | --- | | **Proteins Shared** | | HV349 |  |  | | --- | | **Proteins Shared** | | FCGBP |  |  | | --- | | **Proteins Shared** | | MYL6 |  |  | | --- | | **Proteins Shared** | | CO5 |  |  | | --- | | **Proteins Shared** | | LYSC |  |  | | --- | | **Proteins Shared** | | LV321 |  |  | | --- | | **Proteins Shared** | | IGHD |  |  | | --- | | **Proteins Shared** | | LV218 |  |  | | --- | | **Proteins Shared** | | CELR2 |  |  | | --- | | **Proteins Shared** | | APOD |  |  | | --- | | **Proteins Shared** | | FCN3 |  |  | | --- | | **Proteins Shared** | | KVD13 | | | |
| |  | | --- | | **Subjects** | | 7A 7B 1B 8A 2A 2B 6A |  |  | | --- | | **Subjects** | | 7A 7B 8A 2A 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7B 1B 8A 8B 2B 6B |  |  | | --- | | **Subjects** | | 5A 5B 7B 8B 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 7B 1B 8B 2B 6A 6B |  |  | | --- | | **Subjects** | | 5B 1A 8A 8B 2B 6A |  |  | | --- | | **Subjects** | | 7A 7B 1A 2A 2B 6B |  |  | | --- | | **Subjects** | | 5B 7A 7B 1A 6A 6B |  |  | | --- | | **Subjects** | | 7B 1B 8A 2A 2B 6A |  |  | | --- | | **Subjects** | | 5A 5B 7B 8B 2B 6B |  |  | | --- | | **Subjects** | | 5B 1A 8B 2B 6B |  |  | | --- | | **Subjects** | | 5B 7B 1B 8B 6B |  |  | | --- | | **Subjects** | | 5B 7B 8B 2B 6B |  |  | | --- | | **Subjects** | | 8A 2A 2B 6A | | |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 | | | |  | | --- | | **Proteins Shared** | | A8AP |  |  | | --- | | **Proteins Shared** | | TPM4 |  |  | | --- | | **Proteins Shared** | | IBP2 |  |  | | --- | | **Proteins Shared** | | MYH9 |  |  | | --- | | **Proteins Shared** | | ITB3 |  |  | | --- | | **Proteins Shared** | | PLF4 |  |  | | --- | | **Proteins Shared** | | HV313 |  |  | | --- | | **Proteins Shared** | | LV861 |  |  | | --- | | **Proteins Shared** | | GPX3 |  |  | | --- | | **Proteins Shared** | | TBB1 |  |  | | --- | | **Proteins Shared** | | PGRP2 |  |  | | --- | | **Proteins Shared** | | HV169 |  |  | | --- | | **Proteins Shared** | | LBP |  |  | | --- | | **Proteins Shared** | | ANT3 | | | |
| |  | | --- | | **Subjects** | | 8A 2B 6A 6B |  |  | | --- | | **Subjects** | | 7B 2B 6A 6B |  |  | | --- | | **Subjects** | | 7A 7B 1B 2B |  |  | | --- | | **Subjects** | | 8A 2A 6A |  |  | | --- | | **Subjects** | | 8A 2A 2B |  |  | | --- | | **Subjects** | | 7A 7B 8A |  |  | | --- | | **Subjects** | | 1B 8B 6B |  |  | | --- | | **Subjects** | | 7B 1B 6B |  |  | | --- | | **Subjects** | | 8A 6A |  |  | | --- | | **Subjects** | | 2A 2B |  |  | | --- | | **Subjects** | | 2B 6A |  |  | | --- | | **Subjects** | | 5A 2B |  |  | | --- | | **Subjects** | | 1A | | |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 | | | |  | | --- | | **Proteins Shared** | | ML18A |  |  | | --- | | **Proteins Shared** | | TLN1 |  |  | | --- | | **Proteins Shared** | | KV127 |  |  | | --- | | **Proteins Shared** | | MGP |  |  | | --- | | **Proteins Shared** | | FCN2 |  |  | | --- | | **Proteins Shared** | | LV469 |  |  | | --- | | **Proteins Shared** | | HV333 |  |  | | --- | | **Proteins Shared** | | HV205 |  |  | | --- | | **Proteins Shared** | | ITIH1 |  |  | | --- | | **Proteins Shared** | | CD14 |  |  | | --- | | **Proteins Shared** | | MMRN1 |  |  | | --- | | **Proteins Shared** | | IBP5 |  |  | | --- | | **Proteins Shared** | | SPTA1 | | |
| |  | | --- | | **Subjects** | | 2A |  |  | | --- | | **Subjects** | | 6A |  |  | | --- | | **Subjects** | | 1B |  |  | | --- | | **Subjects** | | 8B |  |  | | --- | | **Subjects** | | 2B |  |  | | --- | | **Subjects** | | 6B | | |  | | --- | | **# of Proteins in Common** | | 2 |  |  | | --- | | **# of Proteins in Common** | | 2 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 1 |  |  | | --- | | **# of Proteins in Common** | | 6 |  |  | | --- | | **# of Proteins in Common** | | 2 | | | |  | | --- | | **Proteins Shared** | | SBSN | | TBA1B |  |  | | --- | | **Proteins Shared** | | SHBG | | ALDOA |  |  | | --- | | **Proteins Shared** | | KV228 |  |  | | --- | | **Proteins Shared** | | ACTBL |  |  | | --- | | **Proteins Shared** | | CERU | | KPYM | | S10A9 | | ANGT | | PIGR | | IPSP |  |  | | --- | | **Proteins Shared** | | VU8\_HHV6U | | 4BFCN3 | | |

**Data Table S3.5B. Venn Diagram Identifications All Pre-Exercise Subjects Compared to Corresponding Post-Exercise Subjects**

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 1A and Subject 1B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **In Common** | | A1AT | | ACTB | | ACTS | | ALS | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOD | | APOE | | APOH | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CBPN | | CD5L | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO8A | | CO8B | | CO9 | | CXCL7 | | CYTC | | FA11 | | |  | | --- | | FA12 | | FA5 | | FCGBP | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | GELS | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV118 | | HV307 | | HV309 | | HV315 | | HV349 | | HV374 | | HV434 | | HV551 | | HV601 | | IBP3 | | IBP4 | | IC1 | | IGF1 | | IGF2 | | IGHA1 | | IGHG1 | | |  | | --- | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | IGJ | | IGKC | | IGLC2 | | IGLL5 | | ITA2B | | ITIH2 | | ITIH4 | | K22E | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV112 | | KV116 | | KV117 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | KVD13 | | KVD39 | | LG3BP | | LV147 | | LV151 | | LV310 | | LV319 | | LV325 | | LV949 | | |  | | --- | | MUCB | | PCOC1 | | PEDF | | PLMN | | POLN\_SFV | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TETN | | THRB | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |  |  |  | | --- | --- | | **Subject 1A only** | | | A2MG | | | APOL1 | | | FCN3 | | | HV313 | | | LV861 | | | LYSC | | | PGRP2 | | | PLF4 | | | SPTA1 | | | **Subject 1B only** | | A2AP | | AMBP | | CELR2 | | CO5 | | |  | | --- | | GPX3 | | HV169 | | HV205 | | HV333 | | HV364 | | HV372 | | IBP2 | | ITB3 | | KV127 | | KV228 | | LV218 | |  | |  | |  | |  | |  | |

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 2A and Subject 2B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **In Common** | | A1AT | | ACTB | | ACTS | | ALS | | AMBP | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOE | | APOH | | APOL1 | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CBPN | | CD5L | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO8A | | CO8B | | CXCL7 | | CYTC | | FA11 | | FA12 | | FA5 | | FCN3 | | |  | | --- | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV118 | | HV307 | | HV315 | | HV349 | | HV364 | | HV372 | | HV374 | | HV434 | | HV551 | | HV601 | | IBP2 | | IBP3 | | IBP4 | | IC1 | | IGF1 | | IGF2 | | IGHA1 | | IGHD | | IGHG1 | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | |  | | --- | | IGJ | | IGKC | | IGLC2 | | IGLL5 | | ITA2B | | ITIH2 | | ITIH4 | | K22E | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV112 | | KV116 | | KV117 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | KVD13 | | KVD39 | | LG3BP | | LV147 | | LV151 | | LV218 | | LV310 | | LV319 | | LV321 | | LV325 | | LV949 | | LYSC | | MUCB | | MYL6 | | PCOC1 | | PEDF | | |  | | --- | | PLF4 | | PLMN | | POLN\_SFV | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TETN | | THRB | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |  |  | | --- | | **Subject 2A only** | | A2AP | | A2MG | | ANT3 | | APOD | | CO9 | | FCN2 | | GELS | | GPX3 | | ITIH1 | | LV469 | | MGP | | ML12A | | TPM4 | | **Subject 2B only** | | ACTBL | | CELR2 | | CO5 | | HV169 | | HV333 | | ITB3   |  | | --- | | LBP | | MYH9 | | PGRP2 | | TBB1 | |  | |  | |  | |  | |  | |  | |  | |

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 3A and Subject 3B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  | | --- | | **In Common** | | A1AT | | A2AP | | A2MG | | ACTB | | ACTS | | ALS | | AMBP | | ANT3 | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOD | | APOE | | APOH | | APOL1 | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CBPN | | CD14 | | CD5L | | CELR2 | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO5 | | CO8A | | |  | | --- | | CO8B | | CO9 | | CXCL7 | | CYTC | | FA11 | | FA12 | | FA5 | | FCGBP | | FCN2 | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | GELS | | GPX3 | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV307 | | HV309 | | HV313 | | HV315 | | HV364 | | HV372 | | HV374 | | HV434 | | HV551 | | HV601 | | IBP3 | | IBP4 | | |  | | --- | | IC1 | | IGF1 | | IGF2 | | IGHA1 | | IGHD | | IGHG1 | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | IGJ | | IGKC | | IGLC2 | | IGLL5 | | ITA2B | | ITIH2 | | ITIH4 | | K22E | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV112 | | KV116 | | KV117 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | LG3BP | | LV147 | | LV151 | | LV310 | | LV319 | | LV321 | | |  | | --- | | LV325 | | LV949 | | LYSC | | MUCB | | MYL6 | | PCOC1 | | PEDF | | PLMN | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TETN | | THRB | | TPM4 | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |  |  |  | | --- | --- | | **Subject 3A only** | | | FCN3 | | | MGP | | | SBSN | | | TBA1B | | | **Subject 3B only** | | ANGT | | CERU | | HV118 | | HV349 | | IBP2 | | IBP5 | | IPSP | | ITB3 | | |  | | --- | | KPYM | | KV127 | | KVD39 | | LBP | | ML12A | | MMRN1 | | MYH9 | | PGRP2 | | PIGR | | PLF4 | | POLN\_SFV | | S10A9 | | TBB1 | | TLN1 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 4A and Subject 4B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  | | --- | | **In Common** | | A1AT | | A2MG | | ACTB | | ACTS | | ALS | | AMBP | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOE | | APOH | | APOL1 | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CBPN | | CD5L | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO5 | | CO8A | | CO8B | | CO9 | | CXCL7 | | CYTC | | FA11 | | |  | | --- | | FA12 | | FA5 | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV118 | | HV307 | | HV309 | | HV315 | | HV372 | | HV374 | | HV434 | | HV601 | | IBP3 | | IBP4 | | IC1 | | IGF1 | | IGF2 | | IGHA1 | | IGHG1 | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | IGJ | | IGKC | | |  | | --- | | IGLC2 | | IGLL5 | | ITA2B | | ITB3 | | ITIH2 | | ITIH4 | | K22E | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV112 | | KV116 | | KV117 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | KVD39 | | LG3BP | | LV147 | | LV151 | | LV310 | | LV319 | | LV325 | | LV861 | | LV949 | | LYSC | | ML12A | | MUCB | | MYH9 | | MYL6 | | PCOC1 | | PEDF | | PLMN | | |  | | --- | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TETN | | THRB | | TLN1 | | TPM4 | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |  |  | | --- | | **Subject 4A only** | | A2AP | | ALDOA | | ANT3 | | APOD | | GELS | | GPX3 | | ITIH1 | | MGP | | MMRN1 | | PLF4 | | SHBG | | **Subject 4B only** | | CELR2 | | FCGBP | | FCN3 | | HV169 | | HV205 | | HV313 | | HV333 | | HV349 | | |  | | --- | | HV364 | | HV551 | | IBP2 | | IGHD | | KVD13 | | LBP | | LV218 | | PGRP2 | | POLN\_SFV | | TBB1 | | VU8\_HHV6U | |  | |  | |  | |  | |  | |  | |  | |  | |  | |

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 14A and Subject 14B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  | | --- | | **In Common** | | A1AT | | A2MG | | ACTB | | ACTS | | ALS | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOE | | APOH | | APOL1 | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CD5L | | CELR2 | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO8A | | CO8B | | CO9 | | CXCL7 | | CYTC | | FA11 | | FA12 | | FA5 | | |  | | --- | | FCGBP | | FCN3 | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV307 | | HV309 | | HV315 | | HV349 | | HV364 | | HV374 | | HV434 | | HV601 | | IBP3 | | IBP4 | | IC1 | | IGF2 | | IGHA1 | | IGHG1 | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | IGJ | | IGKC | | IGLC2 | | |  | | --- | | IGLL5 | | ITA2B | | ITIH4 | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV117 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | KVD13 | | KVD39 | | LG3BP | | LV147 | | LV151 | | LV218 | | LV310 | | LV319 | | LV321 | | LV949 | | MUCB | | MYH9 | | PCOC1 | | PEDF | | PLMN | | POLN\_SFV | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TBB1 | | |  | | --- | | TETN | | THRB | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |  |  | | --- | | **Subject 14A only** | | GELS | | IBP5 |  |  | | --- | | **Subject 14B only** | | AMBP | | CBPN | | CO5 | | HV118 | | HV169 | | HV372 | | HV551 | | IBP2 | | IGF1 | | IGHD | | ITB3 | | ITIH2 | | K22E | | KV112 | | KV116 | | LBP | | LV325 | | LV861 | | MYL6 | | PGRP2 | | PLF4 | |  |

Comparison of Proteins Associated with Fe3O4 NPs Following Incubation in Human Plasma Subject 15A and Subject 15B Prior to and Following Exercise (UniProtKB Entry Name)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  | | --- | | **In Common** | | A1AT | | A2AP | | A2MG | | ACTB | | ACTS | | ALS | | AMBP | | APOA1 | | APOA2 | | APOA4 | | APOA | | APOB | | APOC1 | | APOC2 | | APOC3 | | APOE | | APOH | | APOL1 | | C1QA | | C1QB | | C1QC | | C1S | | C4BPA | | C4BPB | | CBPN | | CD5L | | CFAD | | CFAH | | CLUS | | CO3 | | CO4B | | CO5 | | CO8A | | CO8B | | CO9 | | CXCL7 | | CYTC | | |  | | --- | | FA11 | | FA12 | | FA5 | | FCGBP | | FETUA | | FHR1 | | FHR2 | | FIBA | | FIBB | | FIBG | | FINC | | FLNA | | GELS | | HBB | | HEMO | | HGFA | | HGFL | | HPTR | | HPT | | HRG | | HV307 | | HV309 | | HV313 | | HV315 | | HV364 | | HV372 | | HV374 | | HV434 | | HV551 | | HV601 | | IBP3 | | IBP4 | | IC1 | | IGF1 | | IGF2 | | IGHA1 | | IGHD | | IGHG1 | | |  | | --- | | IGHG2 | | IGHG3 | | IGHG4 | | IGHM | | IGJ | | IGKC | | IGLC2 | | IGLL5 | | ITA2B | | ITIH4 | | K22E | | K2C1 | | KLKB1 | | KNG1 | | KV105 | | KV108 | | KV117 | | KV127 | | KV224 | | KV230 | | KV315 | | KV320 | | KV401 | | KVD11 | | KVD39 | | LG3BP | | LV147 | | LV151 | | LV218 | | LV310 | | LV319 | | LV321 | | LV469 | | LV861 | | LV949 | | MUCB | | MYL6 | | PCOC1 | | |  | | --- | | PEDF | | PLMN | | POLN\_SFV | | PON1 | | PRG4 | | PROP | | PROS | | QSOX1 | | SEPP1 | | TETN | | THRB | | TPM4 | | TRFE | | TSP1 | | TTHY | | VTNC | | VWF |   **15A only**  None   |  | | --- | | **15B only** | | APOD | | CELR2 | | FCN3 | | GPX3 | | HV118 | | HV169 | | HV205 | | HV349 | | IBP2 | | ITB3 | | KV112 | | KV116 | | LBP | | LV325 | | LYSC | | |  | | --- | | MYH9 | | TBB1 | | TLN1 | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |