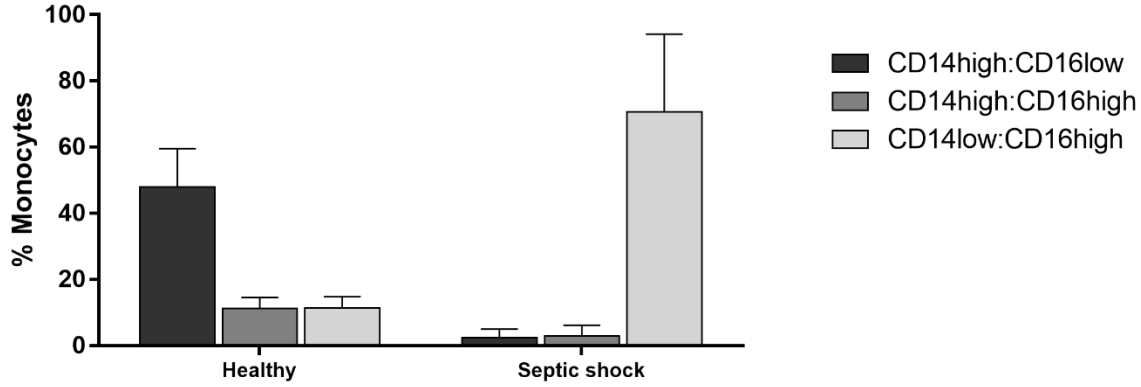


Figure S1: Monocyte's profile. Percentage of classical (CD14high:CD16low), intermediate (CD14high:CD16high), and non-classical (CD14low:CD16high) monocytes expression in PBMC from patients and controls evaluated.

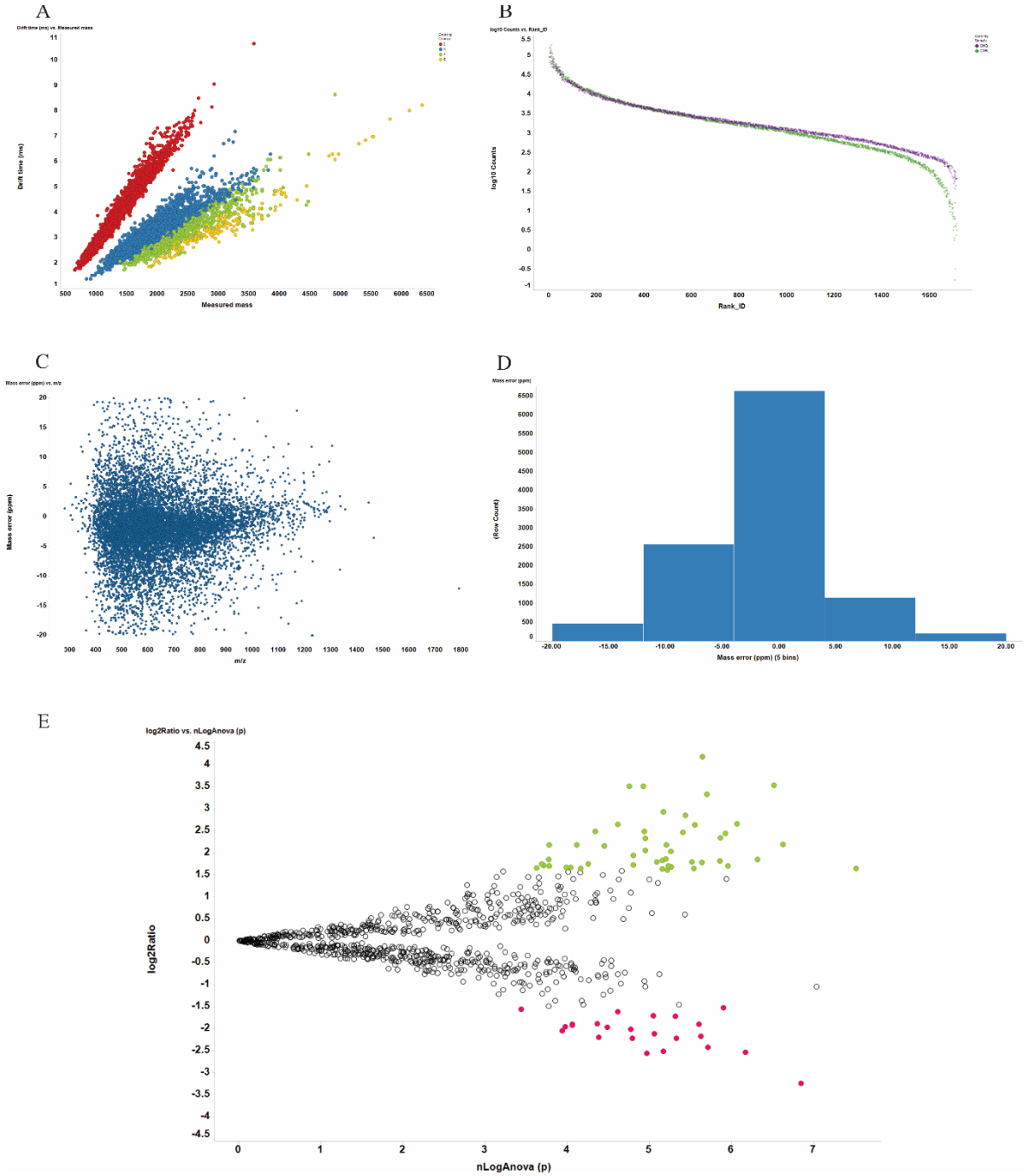


Figure S2: Mass spectrometry: analytical and physicochemical attributes for quality control (proteomics samples) – fom's. Fig.s A to E. Fig. A: peptide precursor mass (Da) and drift time (dt) separation of molecular species across different intrinsic charges and conformations ("chimericity") [64] discriminated by ion mobility separation – legend color by charge state; Red: [M + 2H]2+; Blue: [M + 3H]3+; Green: [M + 4H]4+; Yellow: [M + 5H]5+. B: Dynamic ranges of the quantified proteins in the study. Both conditions display a comparable profile due to similar protein quantitation fulfilled by the previous stoichiometry total ion count detection integrated area (σTIC) normalization. C: Mass error distribution of all peptide measurements, displaying the most dense and compact multitude of points across 0 ppm over the m/z range. D: Mass error distribution frequency displaying a normal distribution profile across 0 ppm. E: Volcano plot (log2fold vs. ANOVA (-log10p) of up (green), unchanged (black) and down-regulated (red) proteins.

Table S1: Characteristics of patients with septic shock

	P1	**P2**	**P3**	**P4**	**P5**
Age	71	68	51	61	32
Gender	M	M	F	M	M
Days of ICU stay	23	49	10	57	9
Type of hospitalization	Traumatic	Neurologic	Surgical	Clinical	Surgical
Microbiological Positive culture	Gram-negative Hemoculture	Polymicrobial Tracheal secretion	Gram-negative Hemoculture	Polymicrobial Hemoculture	- Negative
Mechanical ventilation*	13	17	10	13	0
AKF	No	Yes	No	Yes	No
Hemodialysis	No	Yes	No	Yes	No
SAPS3 score	102	61	51	80	50
%Mortality score	92	38	19	74	17
SOFA score	16	11	14	11	17
Clinical outcome	Non-survive	Survivor	Non-survive	Survivor	Survivor

AKF, Acute Kidney Failure; SAPS3, Simplified Acute Physiology Score III; SOFA, Sequential Organ Failure Assessment; * Days of mechanical ventilation

Table S2: List of protein interactions

PROTEIN	INTERACTING PARTNERS
PPP1CB	RIPK3; SH2D4A; PPP1R11; TMEM33; BRCA1; PPP1R8; PPP1R2; IKBKG; PPP1R12C; PPP1R12B; RB1; SMARCB1; BCL2; PPP1R7; ZFYVE9; PTK2; RYR2; PPP1R12A; CDC34; WBP11; GRB2; MAX; CCND1; PPP1R15A; CDKN2A; PRKAR2A; PPP1R9B; AKAP11; CCND3; NCL; TLX1;
RIPK3	PPP1CB; MYH10; EPRS;
PDPK1	CDAN1; PKN1; MAPK8; AKT1; PRKCD; YWHAQ; PRKACA; PKN2; SGK1; STRAP; PRSS23; RPS6KB1; PTPRC; PRKCI; PTPRB; IRS1; TBL2; RPS6KA1; PTPN12; ITGB3; PTPRG; RPS6KA3; PRKCZ; PTK2B; PRKCE; PAK1; HSP90AA1; SLC9A3R2; SGK3; MTOR; PXN; AKT2; SND1; ILK; YWHAH; PNN; PRKCB; PTPN22; SRC; G3BP1; RPS6KB2; RALGDS; SGK2; PTPRK; PTPRJ; AKTIP; PTPRO; PA2G4; AKT3; CARD11;
EPRS	NELFCD; EEF1D; TFE3; IARS; ATG12; POU2F1; MAP3K14; RARS; MCC; ARL4D; IKBKE; MAPK13; AIMP2; RELB; HSP90AA1; DUS2; SYNCRIP; NFKBIB; IKBKB; MAP3K7; ETS1; RIPK3; NFKB2; NFKBIE; RELA;
FLNB	ATF7IP; NCK1; FBLIM1; GRB2; TSHR; NPHP1; PIK3R1; SMURF2; G3BP1; ITGB1; ITGB6; PLCG1; FLNA; OTUD1; PSEN2; CRK; PSEN1; GP1BA; ITGB3; PLEKHO1;
EFTUD2	DFFA; YWHAB; SNRNP40; USP39; PHLDA3; GSTK1; ARPC3; MYC; CD2BP2; ARRB2; AIRE; PTP4A3; PRPF8; SNRPB; RELA; YWHAG; RNPS1; MEPCE; TOP1; GOLM1; PRKAB1; NFKB2; SREK1; RPAP1; RPAP3; GPN1; RUVBL2;
PTPN1	LTK; JAK2; CRK; IGF1R; PIN1; CTNNB1; PIAS1; INSR; CDH2; GHR; CDK1; PDGFRB; STAT5A; GRB2; NTRK3; IRS1; BCAR1; MAPK1; CAV1; CSNK2A2; RRAS2; CLK1; BCR; TYK2; AKT1; STAT5B; ESR1; ACTN1; GSK3B; EGFR; TRPV6; CAPN2; NTRK2; NTRK1; GLRX; SRC; NFKBIA; CSNK2A1; CLK2; LAT;
ILK	ITGB3; PDPK1; S100A9;

ITGB3	ILK; FBLN2; PECAM1; NID1; AKT1; TLN1; KDR; VTN; CAPN1; DOK1; ITGAV; PDGFRA; PDPK1; DAB2; PTK2; NUMB; ITGB3BP; SHC1; FN1; THY1; ITGA2B; TNS2; TGM2; SRC; DAB1; FGA; FGG; CD36; THBS1; CIB1; FLNB; COL1A2; PTK2B; VWF; ANGPTL3; PXN; FLNA; PDGFRB; ITGA5; EPS8; P2RY2;
ANXA3	EMG1; UNC119; IGSF21; TP53; REG3A; UBR1;
COG4	COG7; COG5; COG2; COG1; COG3;
APOA1	ALB; KRT1; KRT9;
ALB	APOA1; SLX4; NPHS1; ST13; CDCP1; LUC7L2; ZNF232; AHSG; KIAA0232; DMWD; PDZRN4; SLA2; CUBN; CRB1; MYLK3; ATM; FCGRT; UIMC1; HP; APOC3; KIAA1551; QTRTD1; SCAF1; USP37; DICER1; RLF; PON1; C4A; SLC25A13; CABLES1; RANBP3; KLK3; APOE; SPATA31A7; KRT6A; RANBP2; KRT10; CROT; GRAP2; GFAP; LAT; AP4E1; CST3; GJC2; APOA2; SACS; RBP4; PALB2; AMPD3; ADRA1B; DCD; SGOL2; TF; CTAGE5; PLA2G4F; ITGA2; ORM1; SRGN; CRYAA; PRSS3; PPP2R2B; ETF1; TRAPPC11; APOC2; TTR; KRT5; AGA; KCNMA1; CACNA1I; TSC22D1; HPX; PLAG1; RYR2; BBC3; SH3BP5; KRT13; EXOC6; PDE4B; GABBR1; AMBP; LRP2; LDB3; ZNF292; PF4V1; CNOT1; THRAP3; SCN5A; PCDH1; DMD; DDB1; GSN; SLC9A8; F2; OBSL1; F7; CFB; CAMTA1; KRT16; KRT6B; ITIH1; FN1; ITGB5; DERL1; DGKG; CLCA2; CEP44; MYL4; SETX; IGDCC4; OR8D2; PPBP; OR2T6; TTPAL; NLRC4; DCC; CDC45; SORBS3; NR5A2; TLN2; TTN; CFH; CFD; PEG3; CTSL; FAM71E2; OR3A2; KRT9; GCN1; JARID2; SLC1A5; TIAM1; KRT1; SERPING1; NCOA3; PHC3; CHKB; AP1M1; FGA; HNF1A; PCED1B; SPAST; PRSS1; APOC1; YWHAG; KRT14;
SLX4	ALB; S100A8;
KRT1	APOA1; PRKCE; IVL; TANK; FANCA; LOR; MDM2; MBL2; CSTA; F12; FANCC; DSP; PI3; EVPL; PPP2R2B; CALB2; YWHAQ; KNG1; KRT5; APC; EGFR; ALB; CDH1; MAPK11;
HIST1H4A	CENPA; NASP; PAK1; HDAC4; GRB2; PTMA; HJURP; HIST1H3F; MAP3K7; MCM3; MAP3K3; SETD8; HIST1H1E; DNAJA2; HDAC5; H2AFX; ARRB1; RBBP7; HIST1H3E; ASF1A; MCM5; MCM4; HIST1H3B; MCM7; TBL1X; NPM1; MCM2; FKBP14; LIN54; HDAC6; HIRIP3; HIST1H3H; HIST1H3I; LIN37; HAT1; DAXX; DEK; RBBP4; HDAC1; KAT7; HIST1H3G; HIST1H3J; MAP3K1; MCM6; HIST1H3A; RB1; L3MBTL1; HIST1H3C; TNFRSF1A;
CCT8	PPP2CB; PPP2R2D; PPP4C; TCP1; PPP2CA; CTTNBP2; PPP2R2B; TBK1; IGBP1; STRN4; ACTB; STRN3; MYC; PPP2R4; MAP3K3; TRAF3IP3; TP63; RFWD2; PPP2R2C; STRN; MAP3K1; MAPK13; DOCK5; MOB4; CDK9; MEPCE; STK24; RELA; GPN1;
PSMC4	KRT33B; UCHL5; PSMD11; PSMD10; PSMC5; PAAF1; PSMD13; BAG2; RIOK3; TRIP6; USP14; PSMC2; PSMC3; PSMC6; HTR1E; PSMD1; PSMD2; ATG4C; PRKAB1; PAICS; EPB41; PSMD7; PSMD6; CMYA5; PSMC1; IKBKE; MYC; PSMD5; RORB; TRAF6;
NUDC	HLA-B; PAFAH1B1; VDAC1; HLA-C; PRKAB1; MAP3K3; LXN; BTRC; EIF6; ATG5; TIMP2; PLK1; TNIK; TNFRSF10D; PAK2; DGKE; FBXW11; WIPI2; EIF1B; ARF6; MAPK13; ELF3; VHL;
S100A9	S100A8; PPP2R2B; USF2; TAGLN; ARRB2; EGFR; PAK7; ASB3; ARRB1; NUAK1; CFTR; PPP2R1A; ILK;
S100A8	S100A9; NCF2; MOB1A; LRIF1; PRMT1; C14orf1; PPIA; PDCD11; CHGB; SLX1B; IGSF21; MAP3K3; ASB3; RAB17; NUAK1; SLX1A; USF2; PPM1B; CDK2; CEACAM3; UNC119; KLC2; SLX4; PPP2R2B; TP53; LRRK1; TUBA4A; TRAF3IP1; GDF9; NFKBIB; RIF1; DMWD;
EIF1B	ACP1; NUDC; HMGB2;
ACP1	EIF1B; IKBKE; EPHB1; NR3C1; FYN; TNIK; CTNNB1; SFMBT1; EPHB2; SPTAN1; FNBP1L; EPB41; INSR; PAK2; EIF6; EPHA2; FABP4; LCK; VHL; ZAP70; KDR; MRPL20;
MYO5A	BMF; RAB27A; MYC; MLPH; TRIM2; DYNLL2; DYNLL1; SMAD2; SHANK2; PRPH; RAB11A; TRIM3; DLGAP1; NEFL;
FOS	ZNF133; MATR3; TLN2;
ZNF133	FOS; MDM2;
ANAPC5	SMURF1; CDC16; ANAPC16; CDC20; CDC23; ANAPC13; CREBBP; ANAPC1; ZBTB16; CDC27; ANAPC2; PABPC1; ANAPC7; ANAPC4; EP300; APC2; MED19; FZR1; CDT1; SMURF2; BUB3; CDC26; TGFBR1; BUB1B;
CRK	PTPN1; FLNB;

MYH10	ARRB2; COPS5; TNFRSF10D; PRKAB1; SVIL; PBX1; TNFRSF1A; IKBKE; RELA; PAK2; GRB2; MYH9; IKBKG; LLGL1; BCAP31; TNFRSF1B; EPB41; MCC; RIPK3; MAP3K1; S100A4; IKBKB; MARK4; USP45; RIPK2; CHUK; MAP3K3;
ARRB2	MYH10; S100A9; EFTUD2;
IKBKE	ACP1; MYH10; EPRS; PSMC4;
AKT1	PDPK1; ITGB3; KRT10; PTPN1; DLC1;
MATR3	RELA; NFKB2; GFI1B; GSTK1; NR4A1; CDK9; GRB2; MYC; PCBP1; DISC1; EGFR; FOS; TTF2; RUVBL2; MAP3K3; HNRNPK; MEPCE; PPP2R2B; H2AFX;
RELA	MATR3; EFTUD2; MYH10; CCT8; EPRS;
PRKCE	KRT1; PDPK1;
LZTR1	TUBGCP4; BMPR1B;
YWHAQ	PDPK1; KRT9; KRT1;
TANK	KRT9; KRT1;
KRT9	TANK; PPP2R2B; MDM2; TRAF3IP1; APC; SH3GL3; CDH1; YWHAQ; ALB; APOA1;
MLH3	MLH1; MSH4;
LTF	LRP1; MUC7; CD14; SGK1; CP; CDK5RAP3; CALM1; ITLN1; CEL; LCN1; LYZ;
LRP1	LTF; CTSG;
CTNNB1	PTPN1; ACP1;
NR3C1	ACP1; HMGB2;
TLN2	PIP5K1C; FOS; ALB;
HMGB2	POU2F2; PRKDC; PGR; RAG1; CSNK1A1; GZMA; POU3F1; PON2; SET; NFKB1; EIF1B; AR; POU2F1; APEX1; TP53; TRAF6; NR3C1; POU5F1;
C8B	C5; C8A; CLU;
ATP6V1B1	STX1A; ACTN4; SLC9A3R1;
CHTF8	DSCC1; EIF4EBP1; CHTF18; PCNA; RFC2; RFC3;
SGK1	PDPK1; LTF;
UNC119	ANXA3; S100A8;
DMWD	ALB; S100A8;
PPP2R2B	S100A9; KRT9; KRT10; CCT8; ALB; S100A8; KRT1; MATR3;
POU2F1	EPRS; HMGB2;
TNC	NCAN; FN1; EGFR; CNTN1; PTPRB; ITGA5;
KDR	ITGB3; ACP1;
CTSG	C3; SERPINA1; PPBP; SELPLG; SDC1; CASP7; CXCL12; GP1BA; F2RL2; CAMP; KNG1; F2R; IGFBP3; PARP1; F5; CXCR4; VCAM1; SERPIND1; THBS1; SERPINB13; LRP1; F2RL1; SERPINA3; AGT;
IKBKG	PPP1CB; MYH10;
PAK1	HIST1H4A; PDPK1;
SMAD2	ZEB2; MYO5A;
ZEB2	SMAD2; SMAD9; SMAD5; SMAD1; SMAD3; COPS6; CTBP2; SCHIP1; CTBP1;
TNFRSF10D	MYH10; NUDC;
GRB2	FLNB; HIST1H4A; PTPN1; MATR3; MYH10; PPP1CB;
PRKAB1	MYH10; NUDC; PSMC4; EFTUD2;

TRAF3IP1	KRT10; KRT9; S100A8;
KRT10	TRAF3IP1; PPP2R2B; TJP1; EVPL; AKT1; RPS9; ALB; PRKCZ; SMAD3; MDM2; NFKB2; GLE1; MME;
INSR	PTPN1; ACP1;
GSTK1	EFTUD2; MATR3;
TNIK	ACP1; NUDC;
MYC	MYO5A; EFTUD2; MATR3; CCT8; PSMC4;
USF2	S100A9; S100A8;
HLA-C	NUDC; KIR2DL2;
NFKB2	MATR3; HIST1H2BB; KRT10; EFTUD2; EPRS;
PTPRB	PDPK1; TNC; NRCAM;
RB1	PPP1CB; HIST1H4A;
IRS1	PDPK1; PTPN1;
MAP3K3	NUDC; HIST1H4A; S100A8; CCT8; MATR3; MYH10;
PDGFRB	PTPN1; ITGB3;
MAP3K7	HIST1H4A; EPRS;
EVPL	KRT10; KRT1;
EGFR	S100A9; TNC; PTPN1; MATR3; KRT1;
SMURF2	FLNB; ANAPC5;
NRCAM	CNTN2; MAGI3; MACF1; HSPA12A; ANK2; NFASC; PTPRB;
G3BP1	FLNB; PDPK1;
LCN2	MMP2; MMP9; HGF; LRP2;
TUBGCP5	TUBG1; TUBGCP3; MZT1; MZT2B;
CDK9	MATR3; CCT8;
MDM2	KRT1; ZNF133; KRT9; KRT10;
EIF6	NUDC; ACP1;
FN1	TNC; ITGB3; ALB;
SMAD3	ZEB2; KRT10;
KIR2DL2	HLA-C; CD93;
IGSF21	S100A8; ANXA3;
AIRE	EFTUD2; HIST1H2AC;
HIST1H2BB	TNFRSF1A; UHRF1; NFKB2;
TNFRSF1A	HIST1H2BB; MYH10; HIST1H4A;
MCC	EPRS; MYH10;
HIST1H2AC	TFAP2B; AIRE;
PPBP	CTSG; ALB;
ASB3	S100A8; S100A9;
PRKCZ	PDPK1; KRT10;
PTK2B	PDPK1; ITGB3;
EPB41	ACP1; PSMC4; MYH10;
DEFA1	PFDN1; DEFA3; SERPINF2; C1QB;

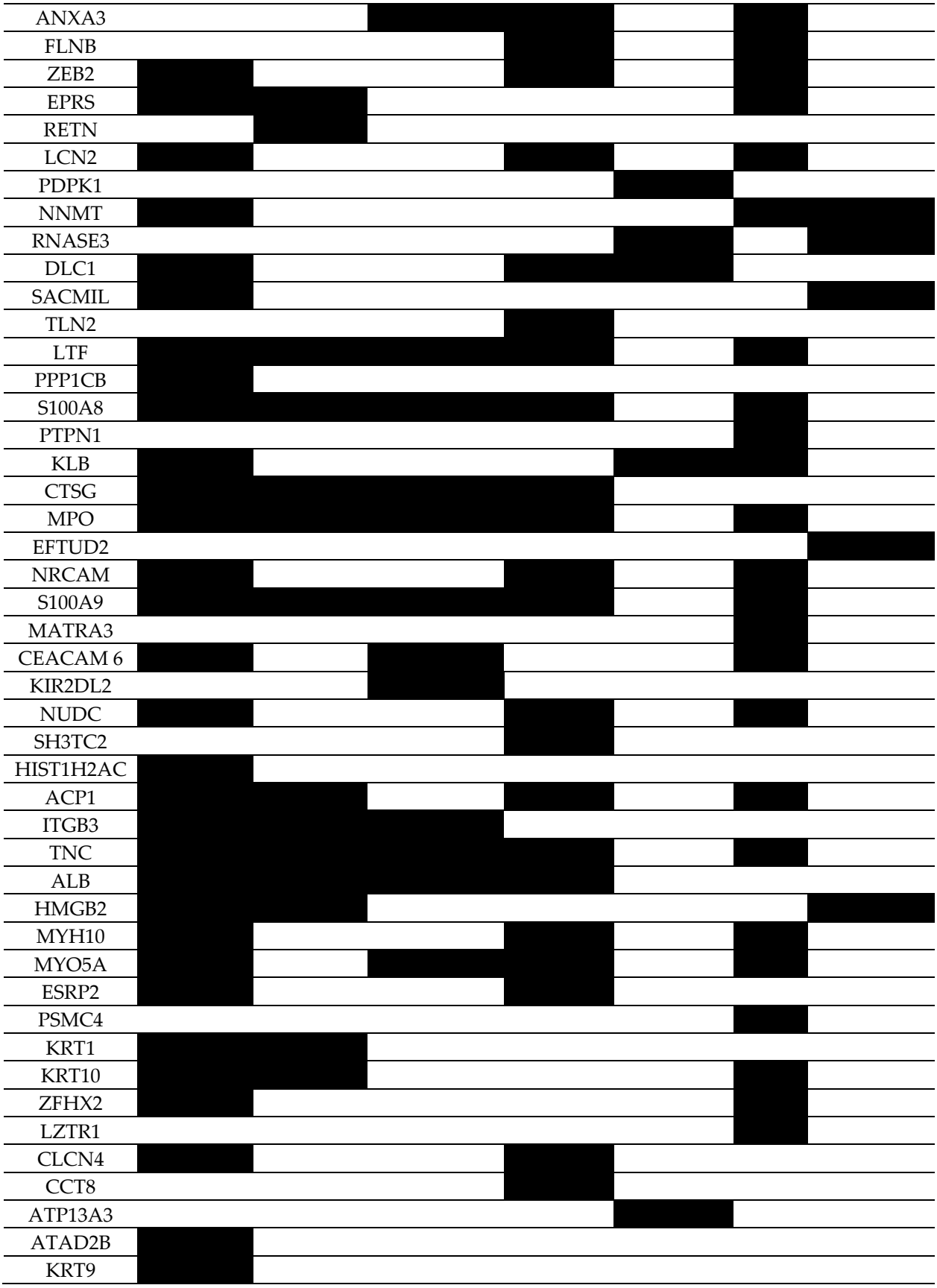
YWHAG	EFTUD2; ALB;
LAT	ALB; PTPN1;
PTK2	PPP1CB; ITGB3;
H2AFX	HIST1H4A; MATR3;
PAK2	MYH10; ACP1; NUDC;
ARRB1	HIST1H4A; S100A9;
FLNA	FLNB; ITGB3;
NUAK1	S100A8; S100A9;
RYR2	PPP1CB; ALB;
MAPK13	EPRS; CCT8; NUDC;
MEPCE	EFTUD2; CCT8; MATR3;
SRC	ITGB3; PTPN1; PDPK1;
CEACAM6	CEACAM8; CEACAM1;
HSP90AA1	PDPK1; EPRS;
KRT5	ALB; KRT1;
FGA	ITGB3; ALB;
CP	LTF; MPO;
VHL	ACP1; NUDC;
GP1BA	CTSG; FLNB;
DLC1	TNS3; AKT1;
TP53	S100A8; ANXA3; HMGB2;
PXN	PDPK1; ITGB3;
LRP2	ALB; LCN2;
THBS1	ITGB3; CTSG;
KNG1	CTSG; KRT1;
MAP3K1	MYH10; CCT8; HIST1H4A;
SACM1L	COPG1; COPB2; COPA;
RUVBL2	MATR3; EFTUD2;
NFKBIB	EPRS; S100A8;
APC	KRT9; KRT1;
IKBKB	EPRS; MYH10;
CDH1	KRT9; KRT1;
ITGA5	TNC; ITGB3;
TRAF6	HMGB2; PSMC4;
GPN1	EFTUD2; CCT8;

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Table S3: The major proteins correlation cell function 30

Protein	Phenotype	Activation	Phagocytosis	Migration	Senescence	Death	Viability


ANXA3
FLNB
ZEB2
EPRS
RETN
LCN2
PDPK1
NNMT
RNASE3
DLC1
SACMIL
TLN2
LTF
PPP1CB
S100A8
PTPN1
KLB
CTSG
MPO
EFTUD2
NRCAM
S100A9
MATRA3
CEACAM 6
KIR2DL2
NUDC
SH3TC2
HIST1H2AC
ACP1
ITGB3
TNC
ALB
HMGB2
MYH10
MYO5A
ESRP2
PSMC4
KRT1
KRT10
ZFHX2
LZTR1
CLCN4
CCT8
ATP13A3
ATAD2B
KRT9

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