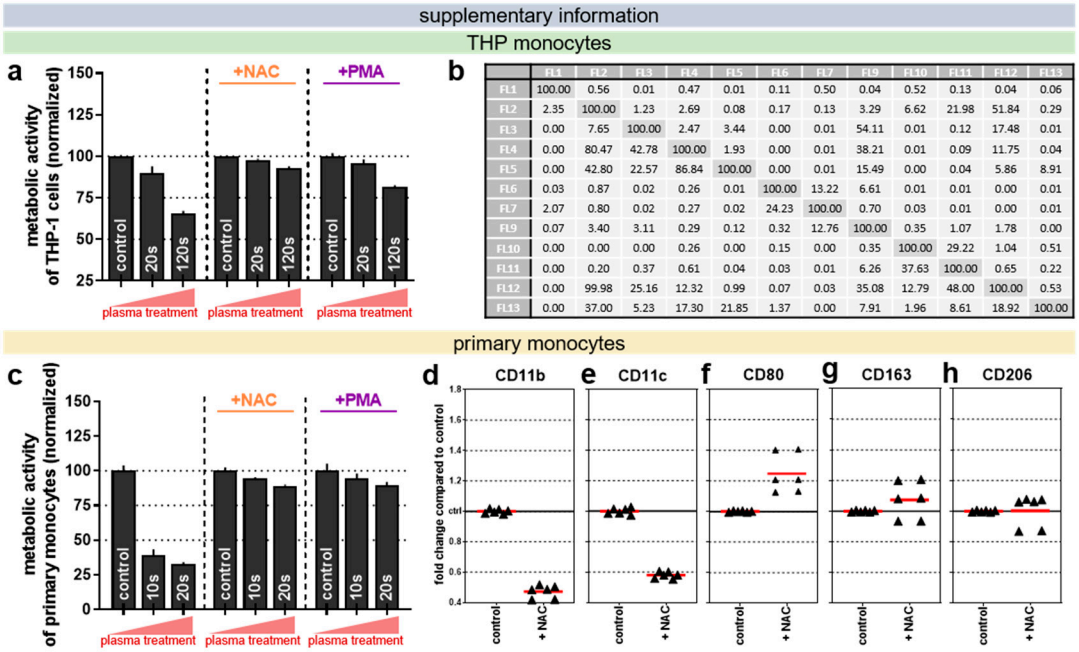
Supplementary Materials: Plasma-derived reactive species shape a differentiation profile in human monocytes

Eric Freund, Juliane Moritz, Matthias Stope, Christian Seebauer, Anke Schmidt, Sander Bekeschus



	FL1	FL2	FL3	FL4	FL5	FL6	FL7	FL9	FL10	FL11	FL12	FL13
FL1	100.00	0.56	0.01	0.47	0.01	0.11	0.50	0.04	0.52	0.13	0.04	0.06
FL2	2.35	100.00	1.23	2.69	0.08	0.17	0.13	3.29	6.62	21.98	51.84	0.29
FL3	0.00	7.65	100.00	2.47	3.44	0.00	0.01	54.11	0.01	0.12	17.48	0.01
FL4	0.00	80.47	42.78	100.00	1.93	0.00	0.01	38.21	0.01	0.09	11.75	0.04
FL5	0.00	42.80	22.57	86.84	100.00	0.00	0.01	15.49	0.00	0.04	5.86	8.91
FL6	0.03	0.87	0.02	0.26	0.01	100.00	13.22	6.61	0.01	0.01	0.00	0.01
FL7	2.07	0.80	0.02	0.27	0.02	24.23	100.00	0.70	0.03	0.01	0.00	0.01
FL9	0.07	3.40	3.11	0.29	0.12	0.32	12.76	100.00	0.35	1.07	1.78	0.00
FL10	0.00	0.00	0.00	0.26	0.00	0.15	0.00	0.35	100.00	29.22	1.04	0.51
FL11	0.00	0.20	0.37	0.61	0.04	0.03	0.01	6.26	37.63	100.00	0.65	0.22
FL12	0.00	99.98	25.16	12.32	0.99	0.07	0.03	35.08	12.79	48.00	100.00	0.53
FL13	0.00	37.00	5.23	17.30	21.85	1.37	0.00	7.91	1.96	8.61	18.92	100.00

Figure 1. Supplementary information regarding 12-marker flow analysis and plasma effect modulation through antioxidant N-acetylcysteine (NAC). (a) Metabolic activity of untreated, or 20 s or 120 s plasma-treated THP-1 cells incubated with n-acetylcysteine (NAC) or PMA 4 h after initial treatment. (b) Compensation matrix with % substraction of intensity values for FL1 (λ = 520/540-488 nm; FITC), FL2 (λ = 690/650-488 nm; PerCP-Cy5.5v), FL3 (λ = 660/620-638 nm; APC), FL4 (λ = 712/725-638 nm; AF700), FL5 (λ = 780/780-638 nm; APC-Cy7), FL6 (λ = 450/445-405 nm; Pacific Blue), FL7 (λ = 525/540-405 nm; BV510), FL9 (λ = 660/620-405 nm; BV650), FL10 (λ = 585/542-561 nm; PE), FL11 (λ = 610/620-561 nm; PE-Dazzle), FL12 (λ = 690/50-561 nm; PE-Cy5) and FL13 (λ = 780/60-561 nm; PE-Cy7). (c) Metabolic activity of untreated, or 10 s or 20 s plasma-treated primary monocytes incubated with NAC or PMA 4 h after treatment. (d-h) Modulation of the expression of (d) CD11b, (e) CD11c, (f) CD80, (g) CD163 and (h) CD206 in primary monocytes incubated with or without NAC. Data (a,c) are representatives out of three independent experiments and are displayed as mean + SEM, (d-h) are individual values and mean (red line) of duplicates measured in three independent experiments. Seconds (s) indicate plasma treatment time, ctrl = control.