

Supplementary Fig. 1. Assessment of macrophage polarization. Human monocytes were differentiated by GM-CSF or M-CSF (20 ng/ml, each) for 6 days to obtain MO_{GM-CSF} or MO_{MCSF} , respectively. Cells were either polarized with 100 ng/ml LPS plus 20 ng/ml IFN- γ to obtain M1, or with 20 ng/ml IL-4 to obtain M2. After 48 h, cells were analyzed for surface expression of polarization markers by flow cytometry. Results are representative for at least three experiments.



Supplementary Fig. 2. Lipid mediator formation in M1 and M2 in response to different stimuli. Human monocyte-derived macrophages were polarized for 24 h to M1 and M2. Cells $(5 \times 10^6 \text{ cells/ml PBS+Ca/Mg})$ were incubated at 37 °C for 60 min with *E. coli* (O6:K2:H1; ratio = 1:50), 100 ng/ml LPS plus 100 nM fMLF, 100 ng/ml serum-treated zymosan (STZ) or vehicle-treated (veh). Formed lipid mediators were isolated by SPE and analyzed by LC-MSMS. Data are expressed as means \pm S.E.M., n = 3; *, p < 0.05; ***, p < 0.001 versus vehicle control (veh.); data were log-transformed for statistical analysis using one-way ANOVA with Bonferroni Multiple Comparison Test.



Supplementary Fig. 3. Scans of Western blots shown in Figure 3B. Molecular weight markers are indicated. Red boxes highlight the lanes that are displayed in the corresponding figures.



Supplementary Fig. 4. Effects of *E. coli* or LPS/fMLF on the subcellular localization of LOXs. Human M1 or M2 (1×10^6 cells/ml PBS+Ca/Mg) were incubated with or without *E. coli* (O6:K2:H1; ratio = 1:50) for 90 min or with LPS (100 ng/ml) 30 min before further stimulation with fMLF (100 nM, 90 min) at 37 °C. Then, cells were fixed, permeabilized, and incubated with antibodies against 5-LOX (red), FLAP (green) or 15-LOX-1 (cyan-blue); scale bars = 10 µm. Results shown for one single cell are representative for approximately 100 individual cells analyzed in *n* = 3 independent experiments (separate donors), each.



Supplementary Fig. 5. Effects of the FLAP inhibitor MK886 on lipid mediator biosynthesis in M2. (A) Effects of MK886 on the 5-LOX/FLAP complex assembly. M2 (1 × 10^6 cells/ml PBS+Ca/Mg) were preincubated with 100 nM MK886 or vehicle (0.1% DMSO) for 15 min at 37 °C, and then incubated with *E. coli* (O6:K2:H1; ratio = 1:50) for another 90 min. 5-LOX/FLAP complexes (magenta dots) were analyzed by proximity ligation assay (PLA); DAPI (blue) was used to stain the nucleus; scale bars = 5 µm (insets) and 15 µm (overview). Results shown for one single cell (insets) are representative for approximately 100 individual cells analyzed in *n* = 3 independent experiments (separate donors), each. (B,C) M2

 $(5 \times 10^{6} \text{ cells/ml PBS+Ca/Mg})$ were preincubated with 100 nM MK886 or vehicle (w/o, 0.1% DMSO) for 15 min at 37 °C, and then incubated with *E. coli* (ratio = 1:50) for another 90 min. Formed LM were extracted by SPE and analyzed by LC-MS-MS. (B) Selected LM and effects of MK886 on LM formation. Data are given as means ± S.E.M, n = 3. *, p < 0.05 versus vehicle control as determined by two-tailed t test. (C) Effects of MK886 on the LM signature profile. Results are given as percentage of vehicle-treated M2 (= 100% control, white) and are shown as heat map, n = 3.



Supplementary Fig. 6. Role of Ca²⁺ and pathogenicity for bacteria-stimulated lipid mediator (LM) formation in M1 and M2. M1 or M2 (5×10^6 cells/ml) were incubated at 37 °C for 90 min with or without *E. coli* (O6:K2:H1; ratio = 1:50) in PBS+Ca/Mg or in PBS containing 0.5 mM EDTA and 20 µM BAPTA/AM, or with the non-pathogenic *E. coli* strain BL21 (ratio = 1:50). Formed LM were isolated by SPE and analyzed by LC-MS/MS. Results are given as percentage of *E. coli* (O6:K2:H1)-stimulated cells treated in PBS+Ca/Mg (= 100% control, black) and shown as heat map, n = 3.

				M1	M2		
DHA bioactive metabolome	Q1	Q3	w/o	+ E. coli	w/o	+ E. coli	
RvD1	375	121	-	-	-	2.8 ± 0.9	
RvD2	375	215	-	1.6 ± 0.5	0.6 ± 0.1	83.2 ± 31.4	
RvD5	359	199	-	4.7 ± 1.4	-	461.9 ± 93.4	
RvD6	359	101	-	0.8 ± 0.4	-	4.5 ± 0.5	
AT-RvD1	375	215	-	1.0 ± 0.4	-	5.4 ± 2.8	
PD1	359	153	-	-	-	7.7 ± 0.7	
AT-PD1	359	153	-	-	-	17.0 ± 2.5	
10S,17S-diHDHA	359	153	-	-	-	53.8 ± 27.5	
MaR1	359	221	-	2.1 ± 0.3	-	84.0 ± 21.7	
7S,14S-diHDHA	359	221	-	0.9 ± 0.3	0.7 ± 0.4	82.0 ± 18.3	
4S,14S-diHDHA	359	101	-	-	-	15.3 ± 4.7	
17-HDHA	343	245	3.1 ± 2.1	80.4 ± 30.7	4.1 ± 2.9	1801.2 ± 627.6	
14-HDHA	343	205	-	32.5 ± 12.4	0.5 ± 0.1	646.2 ± 80.8	
7-HDHA	343	141	-	59.1 ± 28.5	-	141.0 ± 27.9	
4-HDHA	343	101	0.6 ± 0.1	22.5 ± 4.7	1.1 ± 0.4	33.6 ± 7.4	
EPA bioactive metabolome							
RvE1	349	195	-	0.5 ± 0.4	-	0.5 ± 0.2	
RvE2	333	253	1.2 ± 0.2	2.4 ± 1.0	3.0 ± 1.5	5.8 ± 2.7	
RvE3	333	201	1.1 ± 0.3	9.7 ± 4.4	2.8 ± 0.8	15.6 ± 7.8	
18-HEPE	317	259	1.0 ± 0.1	7.6 ± 0.6	2.7 ± 0.9	17.0 ± 3.9	
15-HEPE	317	219	-	15.8 ± 3.8	1.5 ± 0.8	1033.9 ± 403.1	
12-HEPE	317	179	-	13.2 ± 4.7	-	147.1 ± 33.8	
5-HEPE	317	115	-	177.5 ± 111.9	0.7 ± 0.2	51.5 ± 18.2	

Supplementary Table 1. Biosynthesis of the DHA and EPA metabolome in M1 and M2.

Human monocyte-derived macrophages were polarized for 48 h to M1 and M2. Cells (5×10^{6} cells/ml PBS+Ca/Mg) were incubated for 90 min with or without (w/o) *E. coli* (O6:K2:H1; ratio = 1:50) at 37 °C. Formed lipid mediators were isolated by SPE and analyzed by LC-MSMS. Lipid mediator profile of M1 and M2; detection limit: 0.5 pg. Data are given as means ± S.E.M.,

n = 7.

			M1			M2	
AA bioactive metabolome	Q1	Q3	w/o	+ E. coli	w/o	+ E. coli	
LXA ₄	351	115	-	3.6 ± 2.0	-	30.2 ± 15.7	
AT-LXA4	351	115	-	4.4 ± 1.5	-	21.5 ± 4.1	
5,15-di-HETE	335	115	-	32.9 ± 16.7	0.7 ± 0.2	663.4 ± 283.0	
LTB ₄	335	195	0.6 ± 0.3	1188.2 ± 639.2	-	239.9 ± 136.9	
20-OH-LTB4	351	195	-	5.7 ± 2.6	-	3.0 ± 2.1	
PGD ₂	351	189	3.9 ± 1.8	172.7 ± 29.2	22.2 ± 12.1	379.2 ± 165.7	
PGE ₂	351	189	337.2 ± 242.8	13,525.2 ± 4380.9	15.5 ± 6.7	411.2 ± 106.1	
PGF _{2a}	351	193	66.7 ± 31.8	1116.6 ± 181.6	9.7 ± 4.2	615.8 ± 150.7	
TXB ₂	369	169	419.1 ± 220.4	4447.6 ± 1452.1	312.4 ± 148.7	5946.9 ± 863.9	
15-HETE	319	219	1.2 ± 0.2	384.4 ± 96.7	3.3 ± 1.3	3780.3 ± 552.2	
12-HETE	319	179	0.5 ± 0.2	97.6 ± 46.4	0.9 ± 0.2	552.8 ± 112.3	
5-HETE	319	115	0.7 ± 0.2	0.7 ± 0.2 984.4 ± 583.7		592.3 ± 245.0	

Supplementary Table 2. Biosynthesis of the AA metabolome in M1 and M2. Human monocyte-derived macrophages were polarized for 48 h to M1 and M2. Cells (5×10^6 cells/ml PBS+Ca/Mg) were incubated for 90 min with or without (w/o) *E. coli* (O6:K2:H1; ratio = 1:50) at 37 °C. Formed lipid mediators were isolated by SPE and analyzed by LC-MS-MS. Lipid mediator profile of M1 and M2; detection limit: 0.5 pg. Data are given as means ± S.E.M., *n* = 7.

			I	W1	M2		
Substrates/ fatty acids	Q1	Q3	w/o	+ E. coli	w/o	+ E. coli	
AA	303	259	492 ± 106	12,762 ± 3298	879 ± 171	9039 ± 2493	
EPA	301	257	112 ± 34	2509 ± 271	170 ± 40	3302 ± 781	
DHA	327	283	1782 ± 365	11,233 ± 4024	1651 ± 213	15,632 ± 5473	

Supplementary Table 3. Fatty acid substrate release from M1 and M2. Human monocytederived macrophages were polarized for 48 h to M1 and M2. Cells (5×10^6 cells/ml PBS+Ca/Mg) were incubated for 90 min with or without (w/o) *E. coli* (O6:K2:H1; ratio = 1:50) at 37 °C. Released fatty acids were isolated by SPE and analyzed by LC-MS-MS. Lipid mediator profile of M1 and M2; detection limit: 0.5 pg. Data are given as means ± S.E.M., *n* = 7.

Step-by-step solid phase extraction and LC-MS-MS of lipid mediators:

- 1. All cell incubations from individual donors are worked up and subject to LC-MSMS immediately following incubations with or without *E. coli*.
- Transfer the supernatants of cell incubations (0.5 ml) to 1 ml of ice-cold methanol containing the deuterium-labeled internal standards d₈-5S-HETE, d₄-LTB₄, d₅LXA₄, d₅-RvD2, and d₄-PGE₂ (500 pg each) and vortex for 5 sec.
- 3. Cell supernatants-methanol suspensions are held at −20°C for 60 min for protein precipitation and then centrifuged at 1,200 × g, 4 °C, 10 min.
- 4. Each methanolic suspension is transferred separately to a borosilicate glass tube and protein pellets are discarded.
- 5. Samples are placed on ice bath in an ice bucket (VWR, #M16807-2001) while setting up manifold (Waters #WAT200607) and conditioning columns (Biotage #221-0010-B).
- 6. Set up the vacuum manifold (Waters #WAT200607) and connect it to a vacuum.
- 7. Turn on and set the vacuum to ~ -10 psi within the manifold. Pre-wash the SPE column with 3 ml methanol twice, allowing the cartridge bed to saturate with methanol, and then elute. Stop the liquid flow just before the meniscus reaches the top of the cartridge packing. Make sure that all eluents drip in ~ 1-2 drops per second during the elution from SPE.
- 8. Wash the column with 3 ml of distilled water twice. Wait until all cartridges are stopped at the same level before proceeding.
- To protonate unesterified carboxylate (R-COO⁻) containing molecules in order to have them extract into the organic phase, add 9 ml acidified H₂O (pH 3.5, HCl) to each sample. Rapidly check pH to verify acidification at approximately pH 3.5.
- 10. Under pressure, rapidly load the sample (from step #5; 10 ml total) onto the conditioned C18 SPE column to prevent acid-induced degradation of sensitive molecules.
- 11. Wash the C-18 SPE with 3 ml H₂O to eliminate and discard high polarity compounds.
- 12. Next, elute the C-18 SPE with 3 ml hexane twice.

- 13. To collect the products of interest (eicosanoids, resolvins, etc), place a clean borosilicate tube under each column. Elute with total of 6 ml of methyl formate. This fraction contains eicosanoids, SPMs, monohydroxy-containing products and pathway markers.
- 14. System blank: separately in a borosilicate tube, aliquot 1 ml of methanol containing the same synthetic deuterium-labeled standard mixture: d₈-5S-HETE, d₄-LTB₄, d₅-LXA₄, d₅-RvD2, and d₄-PGE₂ (500 pg each).
- 15. Next, all samples are taken to dryness under a gentle stream of nitrogen gas using an evaporation system (TurboVap LV, Biotage) with water bath kept at 37°C.
- 16. Immediately suspend each sample in 50 μl methanol–water (1:1 vol/vol). Vortex for 30 seconds and transfer 50 μl to a clean 1.7 ml Eppendorf tube. Remove precipitates and solid particles by centrifugation at 5,000 × *g*, 4°C, 5 min. Next, for injections into LC-MS-MS, transfer particle-free-supernatant to an autosampler vial (cat #C4010-88AW, Thermo scientific, Rockwood, TN) containing a glass insert (cat #C4010-630, Thermo Scientific, Langwewehe, Germany).
- 17. Inject samples (40 μl injections into a 50 μl loop) using LC–MS–MS system that is equipped with a Shimadzu LC-20AD HPLC and a Shimadzu SIL-20AC autoinjector (Shimadzu, Kyoto, Japan), coupled with a QTrap 5500 (AB Sciex, Framingham, MA).
- 18. An InfinityLab Poroshell 120 EC-C18 column (4.6 × 100 mm × 2.7 μm; Agilent Technologies Inc. Santa Clara, CA) is kept in an oven (ThermaSphere TS-130; Phenomenex, Torrance, CA) maintained at 45°C.
- 19. Elute analytes with a mobile phase flow rate of 0.5 mL/min starting with methanol–water–acetic acid at 20:80:0.01 (vol/vol/vol) for 0.01 min, then ramped to 50:50:0.01 (vol/vol/vol) over 0.19 min and kept at 50:50:0.01 (vol/vol/vol) for 2 min, then ramped to 80:20:0.01 (vol/vol/vol) over 9 min and kept at 80:20:0.01 (vol/vol/vol) for 3.5 min then ramped to 98:2:0.01 (vol/vol/vol) over 0.1 min and kept at 98:2:0.01 for 5.4 min, then ramped to 20:80:0.01 over 0.1 min and kept at 20:80:0.01 for 2.9 min.
- 20. In each experiment, inject and acquire the following: inject standard mixture of lipid mediators (to facilitate matching of each lipid mediators of interest), samples of interest, system blank containing deuterium-labeled standards, and blanks (consisting of methanol flush) in between runs.

	Time	Module	Event	Parameter
1	0.01	Controller	Start	
2	0.20	Pumps	Pump B Conc.	50
3	2.00	Pumps	Pump B Conc.	50
4	11.00	Pumps	Pump B Conc.	80
5	14.50	Pumps	Pump B Conc.	80
6	14.60	Pumps	Pump B Conc.	98
7	20.00	Pumps	Pump B Conc.	98
8	20.10	Pumps	Pump B Conc.	20
9	23.00	Controller	Stop	
10				
œ	100 80 60			
8	40			-
	20			
	٥			
	0.0	5.0) 10.0 Time	15.0 20.0 23.0 (min.)
				Update Graph
🕀 SH	IMADZU	Solutie	ous for Scien	e e .

21.AB Sciex QTrap 5500 operated in negative ionization mode using scheduled MRM coupled with information-dependent acquisition (IDA) and enhanced product ions scan. The scheduled MRM window is set at 90 seconds.

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
327.3	116.1	17.5	CE	-17	-17	d8-5S-HETE
				СХР	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
339.3	197.2	13.7	CE	-23	-23	d4-LTB4
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
355.3	193.2	10.7	CE	-25	-25	d4-PGE2

				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
356.3	115.2	11.5	CE	-19	-19	d5-LXA4
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
380.3	141.2	10.9	CE	-23	-23	d5-RvD2
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	121.1	11.3	CE	-40	-40	RvD1
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	215.1	11.3	CE	-26	-26	RvD1 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
391.1	231.1	10.7	CE	-24	-24	22-0H-RvD1/D2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
405.1	141.1	9.7	CE	-24	-24	22-COOH- RvD1/D2

				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
373.1	231.1	11.5	CE	-24	-24	8/17-oxo-RvD1
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

373.1	233.1	11.5	CE	-20 CXP	-20 -13	7-oxo-RvD2 -13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
373.1	260.1	11.5	CE	-20	-20	16-oxo-RvD2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	147.1	10.9	CE	-25	-25	RvD3
			-	CXP	-13	-13
				CAP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	181 1	10.9	CF	-22	-22	RvD3.3
010.2	101.1	10.3		-22	-22	
				CXP	-13	-13
04 14	02 Мааа					

373.1	163.1	11.5	CE	-22	-22	oxo-RvD3 1
				СХР	-13	-13

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
373.1	189.1	11.5	CE	-22	-22	oxo-RvD3 2
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	255.1	12.3	CE	-25	-25	RvD4
				CXP	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	101.1	12.3	CE	-22	-22	RvD4 2
				CXP	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	209.1	10.8	CE	-18	-18	RvT1
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	191.1	10.8	CE	-18	-18	RvT1
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	225.1	12	CE	-22	-22	RvT2+RvD4
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	141.11	12.2	CE	-18	-18	RVT1+2
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.2	171.1	12.3	CE	-18	-18	RvT3
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.21	143.11	11.2	CE	-21	-21	7,8,17-triHDPA
				CXP	-13	-13

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	215	11.2	CE	-26	-26	7,8,17-triHDPA 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	233	10.7	CE	-40	-40	7,16,17-tri-HDPA
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.21	261.11	10.7	CE	-28	-28	7,16,17-tri-HDPA 2
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	195.1	8.6	CE	-22	-22	RvE1
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	161.1	8.6	CE	-25	-25	RvE1 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
347.1	195.1	9	CE	-22	-22	18-oxo-RvE1
				СХР	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
347.1	289.1	9	CE	-22	-22	12-oxo-RvE1
				CXP	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.2	115.1	11.5	CE	-20	-20	LXA4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.2	235.1	11.5	CE	-20	-20	LXA4 2

				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.1	233.1	11.5	CE	-22	-22	6/15-oxo-LXA4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
353.1	115.1	11.5	CE	-22	-22	7,8/3,14-dihy-LXA4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
367.1	115.1	9.8	CE	-22	-22	20-OH-LXA4/B4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
381.1	115.1	8.8	CE	-22	-22	20-COOH- LXA4/B4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	115.1	10.5	CE	-20	-20	LXA5
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	215.1	10.5	CE	-27	-27	LXA5 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.2	221.1	11	CE	-20	-20	LXB4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.2	251.1	11	CE	-20	-20	LXB4 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

349.2	205.2	11	CE	-20	-20	5-oxo-LXB4
	1	1				1
				CXP	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
353.2	223.2	11	CE	-20	-20	6,7-dihy-LXB4
				CXP	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	221.1	9.6	CE	-20	-20	LXB5
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
349.2	251.1	9.6	CE	-20	-20	LXB5 2
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.3	189.1	10.7	CE	-25	-25	PGE2
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.3	175.1	10.7	CE	-25	-25	PGE2 2
				СХР	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
351.3	233.1	10.8	CE	-16	-16	PGD2
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
353.3	193.1	11	CE	-34	-34	PGF2a
				СХР	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
369.3	169.1	10.2	CE	-22	-22	TXB2
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

351.3	195.1	9	CE	-24	-24	20-OH-LTB4
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

365.3	195.1	8.2	CE	-24	-24	20-COOH-LTB4
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.3	153.1	10.1	CE	-24	-24	22-OH-PD1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
389.3	153.1	9.5	CE	-24	-24	22-COOH-PD1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
375.3	221.1	10.1	CE	-24	-24	22-OH-MaR1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
389.3	221.1	9.5	CE	-24	-24	22-COOH-MaR1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	153.1	13.1	CE	-21	-21	PD1
				СХР	-9	-9
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	181.1	13.1	CE	-19	-19	PD1 2
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

Source Data

357.1	153.1	13.4	CE	-20	-20	10/17-oxo-PD1
				CXP	-9	-9
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	231.1	14.6	CE	-20	-20	16/17-diHDHA
				СХР	-16	-16

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	199.1	13.3	CE	-21	-21	RvD5
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	261.1	13.3	CE	-20	-20	RvD5 2
				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
357.1	215.2	13.5	CE	-20	-20	oxoRvD5
				CXP	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	221.1	13.5	CE	-20	-20	1-Mar
				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	250.1	13.5	CE	-20	-20	MaR1 2
				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	141.1	13.5	CE	-20	-20	MaR1 3
				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
357.2	219.2	13.9	CE	-20	-20	7-oxo-MaR1
				СХР	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

357.2	248.2	13.9	CE	-20	-20	14-oxo-MaR1
				СХР	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	101.1	14	CE	-22	-22	RvD6/4,14 1
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

359.2	159.1	14	CE	-22	-22	RvD6/4,142
				CXP	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	209.1	13.9	CE	-20	-20	RvT4
				СХР	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.21	221.11	13.9	CE	-20	-20	RvT4
				CXP	-11	-11
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	143.1	11.2	CE	-20	-20	RvD1 n3 DPA 1
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	215.1	11.2	CE	-20	-20	RvD1 n3 DPA 2
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	233.1	10.8	CE	-20	-20	RvD2 n3 DPA 1
				CXP	-13	-13

Source Data

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	261.1	10.8	CE	-20	-20	RvD2 n3 DPA 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	211.1	11.2	CE	-20	-20	RvT1 n3 DPA
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	239.1	11.2	CE	-20	-20	RvT1 n3 DPA 2
				CXP	-13	-13

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	197.1	12.3	CE	-20	-20	RvT2+3 n3 DPA
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
377.2	143.11	12.5	CE	-20	-20	RvT2+3 DPA 2
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	143.1	14	CE	-20	-20	RvD5 n3 DPA 1
				СХР	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	201.2	14	CE	-20	-20	RvD5 n3 DPA 2 +8,9/15,16- dihyRvD5
				CXP	-13	-13

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	211.1	14.3	CE	-20	-20	RvT4 n3 DPA
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	239.1	14.3	CE	-20	-20	RvT4 n3 DPA 2
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	223.2	14.2	CE	-20	-20	MaR1 n3 DPA 1 +8,9/12,13- dihyMaR1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

361.1	252.2	14.2	CE	-20	-20	MAR1 n3 DPA 2 +8,9/12,13- dihyMaR1
				СХР	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	123.1	14.2	CE	-20	-20	PD1 n3 DPA 1
				СХР	-10	-10
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.1	155.2	14.2	CE	-25	-25	PD1 n3 DPA 2
				СХР	-10.5	-10.5
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

359.2	205.1	13.8	CE	-22	-22	14,21-diHDHA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	233.1	13.8	CE	-22	-22	14,21-diHDHA 2
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	231.2	14.2	CE	-22	-22	16,17-diHDHA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
359.2	191.1	14.2	CE	-22	-22	13,14-diHDHA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	155.1	13.7	CE	-25	-25	10,17-diHDPA
				СХР	-12	-12

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	183.1	13.7	CE	-23	-23	10,17-diHDPA 2
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	199.1	13.7	CE	-26	-26	7,17-diHDPA
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	263.1	13.7	CE	-21	-21	7,17-diHDPA 2
				СХР	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

361.2	223.1	13.7	CE	-23	-23	7,14-diHDPA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	252.1	13.7	CE	-19	-19	7,14-diHDPA 2
				СХР	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	207.1	13.8	CE	-22	-22	14,21-diHDPA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	235.1	13.8	CE	-22	-22	14,21-diHDPA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	233.1	14.2	CE	-22	-22	16,17-diHDPA
				CXP	-16	-16

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
361.2	193.2	14.2	CE	-22	-22	13,14-diHDPA
				СХР	-16	-16
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
333.3	199.1	12.1	CE	-24	-24	RvE2/5,15
				СХР	-17	-17
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
333.3	253.1	12.1	CE	-20	-20	RvE2
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID

333.3	201.2	13.5	CE	-20	-20	RvE3
				СХР	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
333.3	245.1	13.5	CE	-16	-16	RvE3
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
335.2	195.1	13.7	CE	-22	-22	LTB4
					-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
335.2	115.1	15.7	CE	-20	CXP -13 -13 Start Stop ID -20 -20 5S,6R-diH. CXP -13 -13	
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
335.3	115.1	13.4	CE	-22	-22	5,15-diHETE
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
335.3	235.1	13.4	CE	-22	-22	5,15-diHETE 2
				CXP	-13	-13

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
333.3	115.1	12.4	CE	-22	-22	5,15-diHEPE
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
333.3	235.1	12.4	CE	-22	-22	5,15-diHEPE 2
				СХР	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	255.1	17.3	CE	-17	-17	21-HDHA

				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	245.1	17.3	CE	-17	-17	17-HDHA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	205.1	17.3	CE	-17	-17	14-HDHA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	193.1	17.3	CE	-17	-17	13-HDHA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	141.1	17.3	CE	-18	-18	7-HDHA
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
343.2	101.1	17.4	CE	-17	-17	4-HDHA
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
345.2	257.1	17.5	CE	-17	-17	21-HDPA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
345.2	247.1	17.5	CE	-17	-17	17-HDPA
				CXP	-14	-14

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
345.2	207.1	17.5	CE	-17	-17	14-HDPA
				CXP	-14	-14
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
345.2	195.1	17.4	CE	-17	-17	13-HDPA

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
345.2	143.1	17.5	CE	-18	-18	7-HDPA
				CXP	-15	-15
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
317.2	259.1	15.9	CE	-16	-16	18-HEPE
				CXP	-23	-23
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
317.2	219.1	16	CE	-18	-18	15-HEPE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
317.2	179.1	16.5	CE	-19	-19	12-HEPE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
317.2	167.1	16.1	CE	-19	-19	11-HEPE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
317.2	115.1	17.3	CE	-18	-18	5-HEPE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
319.2	219.1	17.2	CE	-19	-19	15-HETE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
319.2	179.1	17.4	CE	-21	-21	12-HETE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
319.2	167.1	17.3	CE	-21	-21	11-HETE
				CXP	-12	-12
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
319.2	115.1	17.5	CE	-21	-21	5-HETE
				CXP	-12	-12

Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
303.3	259.1	18.5	CE	-16	-16	AA
				СХР	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
301.3	257.1	17.9	CE	-16	-16	EPA
				CXP	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
327.3	283.1	18.5	CE	-16	-16	DHA
				CXP	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
329.3	285.1	19	CE	-16	-16	DPA
				CXP	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
306	221	0.6	CE	-16	-16	ignore
				CXP	-18	-18
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
323.2	235.1	11.3	CE	-20	-20	Beta Ox LXA4
				CXP	-13	-13
Q1 Mass (Da)	Q3 Mass (Da)	RT (min)	Param	Start	Stop	ID
325.2	237.1	11.3	CE	-20	-20	d2 Beta Ox LXA4
				CXP	-13	-13

22. Deuterium-labeled lipid mediators mark the reverse phase LC chromatographic behaviors for d₄-PGE₂ used for PGD₂, PGE₂, PGF_{2α}, and TXB₂; d₅-LXA₄ used for trihydroxy-containing LXA₄, AT-LXA₄, LXB₄, AT-LXB₄, LXA₅, LXB₅, RvE1; d₄-LTB₄ used for dihydroxy-containing 5S,15S-diHETE, 5R,6S-diHETE, RvD5, RvD6, RvE2, RvE3, PD1, AT-PD1, PDX, LTB₄, 20-OH-LTB₄, 20-COOH-LTB₄, 22-OHPD1, MaR1, 7S,14S-diHDHA, 4,14-HDHA, 5S,12S-diHETE; d₈-5S-HETE used for monohydroxy-containing 17-HDHA, 14-HDHA, 7-HDHA, 4-

HDHA, 15-HETE, 12-HETE, 5-HETE, 18-HEPE, 15-HEPE, 12-HEPE, 5-HEPE, AA, EPA, DHA; d_5RvD_2 used for trihydroxy-containing RvD1, AT-RvD1, RvD2, RvD3, AT-RvD3 and RvD4.

23. Each lipid mediator is identified according to published physical criteria that include at least six diagnostic ions (from EPI scans) consistent with the structure of the lipid mediator.

24. Amounts of each mediator are calculated using the following formula: a

 $X - (pg) = \times c$ (pg)

b

where;

X = lipid mediator quantity after extraction recovery calculation (pg) a = area beneath the peak of deuterium-label in system calibration internal standard 100%

b = area beneath the peak of deuterium-label in the sample c = lipid mediator quantity in sample before extraction recovery calculation (pg)

• Step-by-step data processing and graph creation (for Figure 1a)

(A) <u>Top panel</u>: Multiple Reaction Monitoring (MRM) **chromatograms** of RvD2 and RvD5 from standard mixture and from human macrophages incubated with *E. coli*

- 1. Data were acquired and analyzed using Analyst software Version 1.6.2 (Framingham, Massachusetts) for LC-MS-MS (QTRAP 5500 AB Sciex equipped with LC-20AD HPLC Shimadzu).
- Chromatographic behaviors are matched with those of synthetic standards for each lipid mediator. In this case in Figure 1a, RvD2 elutes at 11.0 min and RvD5 elutes at 13.7 min. See "Step-by-step solid phase extraction and LCMS-MS of lipid mediators" step #20 screen shot, green line denotes the gradient.
- 3. From the total multiple reaction monitoring (MRM) chromatograms, an extracted MRM transition was obtained for each mediator (see below) <u>RvD2</u> and RvD5 in the standard mixture (direct screen capture from Analyst software)



<u>RvD2 and RvD5 obtained from human macrophages incubated with E. coli (direct</u> <u>screen capture from Analyst software)</u>



 Retention time (RT) from 10.0-12.0 mins for RvD2 and 13.2-14.5 min for RvD5 were enlarged and presented in insets in Figure 1a top panels (screen captures)

а



5. Final figure 1a (top panels)

Multiple Reaction Monitoring (MRM) chromatograms of RvD2 and RvD5



- (B) <u>Bottom panels</u>: **MS-MS spectra** of RvD2 and RvD5 obtained from human macrophages incubated with *E. coli*
 - 1. We obtained MS-MS Spectra from LC-MS-MS software Analyst Version
 - 1. 6.2; Framingham, MA. The scan interval was between ratio mass/charge 100 to 450 *m/z*, Da. Each mediator was identified using published criteria obtained in their structure elucidation, which included identification criteria of at least six characteristic diagnostic ions present in their MS-MS spectra.
 - 2. From the total ion chromatogram (TIC), the enhanced product ion (EPI) spectra were extracted at the RT=11.0 min for RvD2 and RT=13.7 for RvD5

3. Centroided spectra from Analyst software



We then used Analyst software Version 1.6.2 that performs an automatic baseline subtraction in order to remove a constant or slowly varying offset from a set of data, facilitating the location of small peaks that are obscured by noise. The noise threshold is the level below which data is considered noise. In a graph, the noise threshold is a line parallel to the x-axis denoted by a blue arrowhead to the left of the y-axis representing the noise threshold.

We also applied the "centroid" feature in the Analyst software Version 1.6.2. Centroiding a spectrum converts peak distribution values into a single value that represents the peak. The algorithm used by the software converts peaks to single values by using an intensity-weighted average to calculate the center of gravity of the peak.

RvD2 – EPI spectrum centroided (direct screen capture from Analyst software)



<u>RvD5 – EPI spectrum centroided (direct screen capture from Analyst software)</u>



- 4. RvD2 and RvD5 were identified by matching at least six characteristic diagnostic ions present in the MS-MS spectra.
- We then listed diagnostic ions and presented chemical structures of RvD2 and RvD5 with proposed fragmentations, which are shown in the schematic illustrations in the insets.

MS-MS spectra



The ions used for identification of RvD2 included m/z 375, 357, 339, 295, 277, 259, 241, 203.

The ions used for identification of RvD5 included m/z 359, 341, 279, 261, 243, 227, 199, 141.

Following in the spirit of this author correction, we are providing the original scans of 3 Western blot images presented in Fig. 3b and Supplementary Fig. 3. Please note that all Western blots presented in Fig. 3b and Supplementary Fig. 3 are original scans of single membranes without cutting and are single blots. These were carried out at the University of Jena, Germany.

Source data: Chromatographs and mass spectra of RvD2 and RvD5

Donor 1

File name: OW 03112016 M1 M2 Time course Ecoli.wiff Sample (STD) and (OW 48-6)

Donor 1: RvD2 and RvD5 standard chromatograms: OW 03112016 M1 M2 Time course Ecoli.wiff (STD)



Donor 1: RvD2 and RvD5 chromatograms: OW 03112016 M1 M2 Time course Ecoli.wiff (OW 48-6)



Donor 1: RvD2 EPI spectrum: OW 03112016 M1 M2 Time course Ecoli.wiff (OW 48-6)



Donor 1: RvD5 EPI spectrum: OW 03112016 M1 M2 Time course Ecoli.wiff (OW 48-6)

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Donors 2 and 3 Filename: OW 03262016 M1 M2 Time course polarization.wiff Sample (STD), (OW 1-25) and (OW 1-31)

Donors 2 and 3: RvD2 and RvD5 standard chromatograms: filename: OW 03262016 M1 M2 Time course polarization.wiff



Donor 2: RvD2 and RvD5 chromatograms: filename: OW 03262016 M1 M2 Time course polarization.wiff



Donor 2: RvD2 EPI spectrum: OW 03262016 M1 M2 Time course polarization.wiff



Donor 2: RvD5 EPI spectrum: OW 03262016 M1 M2 Time course polarization.wiff



Donor 3: RvD2 and RvD5 chromatograms: OW 03262016 M1 M2 Time course polarization.wiff



Donor 3: RvD2 EPI spectrum: OW 03262016 M1 M2 Time course polarization.wiff



Donor 3: RvD5 EPI spectrum: OW 03262016 M1 M2 Time course polarization.wiff

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Donor 4 Filename: OW 03182016 M1 M2 polarization RvD2 RvD5 LTB4.wiff Samples (STD) and (OW 1-7)

Donor 4: RvD2 and RvD5 **standard** chromatograms: OW 03182016 M1 M2 polarization RvD2 RvD5 LTB4.wiff (STD)



Donor 4: RvD2 and RvD5 chromatograms: OW 03182016 M1 M2 polarization RvD2 RvD5 LTB4.wiff (OW 1-7)



Donor 4: RvD2 EPI spectrum: OW 03182016 M1 M2 polarization RvD2 RvD5 LTB4.wiff (OW 1-7)



Donor 4: RvD5 EPI spectrum: OW 03182016 M1 M2 polarization RvD2 RvD5 LTB4.wiff (OW 1-7)



Donor 5

File name: OW 01212016 M2 bacteria alone time course.wiff Samples (STD), OW 1-6



Donor 5: RvD2 and RvD5 standard chromatograms: OW 01212016 M2 bacteria alone time course.wiff (STD)

Donor 5: RvD2 and RvD5 chromatograms: OW 01212016 M2 bacteria alone time course.wiff (OW 1-6)



Donor 5: RvD2 EPI spectrum: OW 01212016 M2 bacteria alone time course.wiff (OW 1-6)



Donor 5: RvD5 EPI spectrum: OW 01212016 M2 bacteria alone time course.wiff (OW 1-6)

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Donor 6

File name: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff Samples (STD) and (OW M2 24 ecoli)

Donor 6: RvD2 and RvD5 **standard** chromatograms: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (STD)







Donor 6: RvD2 EPI spectrum: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (OW M2 24 ecoli)

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Donor 6: RvD5 EPI spectrum: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (OW M2-6)



Donor 7 OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff Samples (STD) and (OW M2-6)

Donor 7: RvD2 and RvD5 **standard** chromatograms: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (STD)







Donor 7: RvD2 EPI spectrum: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (OW M2-6)



Donor 7: RvD5 EPI spectrum: OW 03162016 M1 M2 time polarization E coli RvD5 LTB4.wiff (OW M2-6)

