

Supplementary Material

1 Supplementary Data

Table S1. Concentrations of all measured cytokines in the lung lysate.

Protein	Gene Symbol	Description	LLD	LLOQ	Avg. C57BL/6 Male Veh (pg/mL)	Avg. C57BL/6 Male MC-LR (pg/mL)	Avg. C57BL/6 Female Vehicle (pg/mL)	Avg. C57BL/6 Female MC-LR (pg/mL)	Avg. BALB/c Male Veh (pg/mL)	Avg. BALB/c Male MC-LR (pg/mL)	Avg. BALB/c Female Vehicle (pg/mL)	Avg. BALB/c Female MC-LR (pg/mL)
IL-1a	<i>Il1a</i>	interleukin 1 alpha	0.031	0.19	1.33	4.92	1.77	3.03	9.53	12.98	9.44	9.90
IL-1b	<i>Il1b</i>	interleukin 1 beta	0.027	0.62	0.45	0.43	0.45	0.47	2.09	1.38	0.99	1.33
IL-2	<i>Il2</i>	interleukin 2	0.036	0.87	0.98	0.55	0.59	0.79	1.09	0.93	1.15	1.18
IL-3	<i>Il3</i>	interleukin 3	0.021	0.25	0.21	0.28	0.18	0.37	0.26	0.17	0.28	0.29
IL-4	<i>Il4</i>	interleukin 4	0.089	0.62	0.27	0.38	0.32	0.38	0.67	0.30	1.06	0.95
IL-5	<i>Il5</i>	interleukin 5	0	0.65	0.40	0.55	0.61	0.95	0.81	0.65	1.02	0.99
IL-6	<i>Il6</i>	interleukin 6	0.0066	0.79	0.33	0.51	0.27	0.39	0.29	0.18	0.13	0.21
IL-10	<i>Il10</i>	interleukin 10	1.09	7.31	0.45	0.65	0.36	0.60	0.19	0.15	0.23	0.22
IL-12	<i>Il12b</i>	interleukin 12b	0	4.07	3.10	7.22	3.52	7.47	2.38	2.10	2.20	2.30
IL-17	<i>Il17a</i>	interleukin 17A	0.0089	1.13	0.06	0.36	0.09	0.49	0.33	0.21	0.39	0.30
MCP-1	<i>Ccl2</i>	chemokine (C-C motif) ligand 2	0.1	11.98	3.61	11.79	3.06	6.29	5.24	5.32	3.52	3.59
IFN γ	<i>Ifng</i>	interferon gamma	0	0.89	0.25	0.49	0.24	0.63	0.60	0.40	0.45	0.46
TNF α	<i>Tnf</i>	tumor necrosis factor	0.053	0.49	0.13	0.28	0.06	0.16	0.08	0.03	0.08	0.06
MIP-1a	<i>Ccl3</i>	chemokine (C-C motif) ligand 3	0.0092	0.18	0.38	3.26	0.33	1.77	0.33	0.48	0.17	0.21
GM-CSF	<i>Csf2</i>	colony stimulating factor 2 (granulocyte-macrophage)	0	0.62	0.41	1.15	0.58	0.99	0.36	0.31	0.27	0.28
RANTES	<i>Ccl5</i>	chemokine (C-C motif) ligand 5	0.022	0.13	6.94	10.04	7.71	9.89	46.37	18.95	41.81	19.34
Eotaxin	<i>Ccl11</i>	chemokine (C-C motif) ligand 11	0.087	0.24	46.12	49.84	49.93	51.27	82.45	92.83	65.54	62.92
MIP-2	<i>Cxcl2</i>	chemokine (C-X-C motif) ligand 2	0.53	22.21	5.61	18.26	6.00	17.03	3.24	2.42	5.34	3.87
KC	<i>Cxcl1</i>	chemokine (C-X-C motif) ligand 1	0.3	1.56	2.84	15.17	2.14	10.12	8.09	10.90	7.82	8.53
MDC	<i>Ccl22</i>	chemokine (C-C motif) ligand 22	0.16	6.25	10.10	26.26	12.32	18.88	4.10	5.22	7.51	7.13
TARC	<i>Ccl17</i>	chemokine (C-C motif) ligand 17	1.37	3.7	292.56	892.63	481.84	577.25	144.76	181.56	235.38	241.51
TCA-3	<i>Ccl1</i>	chemokine (C-C motif) ligand 1	0.36	0.66	1.53	2.03	1.42	1.98	0.71	0.55	0.18	0.26
IL-13	<i>Il13</i>	interleukin 13	0.32	10.74	1.41	1.58	1.32	1.60	0.75	0.69	1.22	0.91

Table S2. All lipidomics measurements from lung lysates of male C57BL/6 mice exposed to MC-LR or Vehicle (Veh). All values are in ng analyte per mg total protein.

Lipid \ Sample ID	Veh 1	Veh 2	Veh 3	Veh 4	MC- LR 1	MC- LR 2	MC- LR 3	MC- LR 4	Avg. Veh Ctrl	Avg. MC- LR
5(S),15(S)- DiHEPE	53	11	23	14	255	286	201	226	25	242
LXB4	35	10			143	209	223	214	22	197
19,20- DiHDoPE	134	52	184	79	336	228	394	253	112	303
20-COOH LTB4	7	5		4		42	32	22	5	32
11,12- DiHETrE	133	71	257	95	323	575	811	342	139	513
14,15- DiHETrE	154	108	468	124	417	850	739	402	213	602

14-HDoHE	26	44	49	36	10			18	39	14
TXB2		9	23	11		28	26	28	14	27
13,14dh-15k-PGF2a	1		2		1	0	1	1	2	1
15-keto PGE2	5	15	33	22	4	6	6	4	19	5
PGD3	1	2	4	3	0	1	1	1	3	1
12-HETE	242	542	466	362	61	281	184		403	175
9-HODE	2195	944	1241	495	1708	2736	3528	1964	1219	2484
12(13)-EpOME	5	5	5		2	5	3	2	5	3
5(6)-EpETrE	1		1	1	1	1	1	1	1	1
15-epi LXA4	10		10			70	41		10	55
12-OxoETE	198	366	36	188	14		60	24	197	33
13-HODE	2673	1544	1515	758	1257	5433	4907	2148	1622	3436
15(R)-PGE1			4	3	1	2	2		3	2
13(14)-EpDPE	0	0	0	0		0	0	0	0	0
11(12)-EpETrE	4	2	3			2	2		3	2
11(R)-HEDE	12	4	6	4			16	9	7	12
13,14dh-15k-PGE2	12	19	52	27	11	20	16	10	27	14
15-HETE	325	160	235	84	166	542	459	239	201	352
iPF-VI			0	0			0	0	0	0
15-OxoEDE	5	4	1	1		22	7	2	3	10
12,13-DiHOME	128	211	523	139	371	1900	466	352	250	772
5-HETE	22	18	5	6	3	51	37		13	30
5,6-DiHETrE	14	9	71	18	44		74		28	59
15-OxoETE			5	5	5	30	27	7	5	17
9-OxoODE	893	601	215	293	182	3705	1677	375	501	1485
16(17)-EpDPE	0		0	0	0	0	0		0	0

12(S)-HHTrE	448	113	174	105	262	762	351	183	210	390
RvD2		1	37	1	1	1	1	1	13	1
PGE1	4	8	19	9	5	7	8	4	10	6
Bicyclo PGE2		1	2	1	0	1	1	1	1	1
8,9-DiHETrE	21	17	65	11	28		110	37	28	58
5-oxoETE	27	8	4	8	3			2	12	3
14(15)- EpETrE	1	1		1	0	0	1		1	1
13-OxoODE	1140	1185	285	341	283	8953	2153	373	738	2941
4-HDoHE	7	5	1	3	1	22			4	11
Bicyclo PGE1	0	0	1	0			0	0	0	0
15-keto PGF2a	8	13	34	20	9	19	16	8	19	13
14(15)-EpETE	1		1		1		0	1	1	1
19(20)-EpDPE	0		0	0	0	0	0	0	0	0
16-HDoHE	8	28	14		6	48	36	10	17	25
PGF1a	1	1	2	1	1	1	1	1	1	1
PGE2	114	200	507	291	161	336	246	136	278	220
8(9)-EpETrE	0			0		0		1	0	1
13(S)-HOTrE		20	4	3	2			7	9	5
PGD2	30	28	79	61	41	60	69		50	57
9(10)-EpOME	8	5	8	4		8	2		6	5
13-HDoHE	37	8	26	9	31	35		8	20	24
6kPGF1a		6	40			16		16	23	16
5(S),12(S)- DiHETE	1060		1193	803	602	1152	1076		1019	943
8-HETE	10	24	10	6	3		26	15	13	15
8-isoPGF2a & 11bPGF2a	2	1	3	1	1	2	2	1	2	1
13,14dh-15k- PGE1	0	0	1	0	0	0	0	0	0	0
PGF2a	23	12	36	22	22	26	25	15	23	22
PGJ2	3	6	13	9	5	11	10	7	8	8

PGE3		0	1	1	1	1	1	0	1	1
13,14dh-15k-PGD2	22	15	46	19	17	32	31	25	25	26
20-HDoHE	14	14	5	6	5		15	8	10	9
D12-PGJ2	2		5		2		5		3	3
PGA2	5	10	23	15	7	19	16	9	13	13
LXA5		10		21				75	15	75
LTB5	8		9	8	32				8	32
20-HETE	76	64				233			70	233
9,10-DiHOME	239	14	831	10			858		273	858
15-oxo LXA4		20		11				39	16	39
5,6-DiHETE(EPA)	28		20	10			34		20	34
11-HEPE			5	2	5				3	5
9(S)-HOTrE			1					2	1	2
LTB4	271		170			286			221	286
8(S)-HETrE				2				2	2	2
11-HETE	525		236	152	267				304	267
RvD1 & AT-RvD1		1						1	1	1
tetranor PGEM				0	0		0		0	0
PGF3a	0					0		0	0	0
10(11)-EpDPE	1				0				1	0
2,3-dinor PGE1	0				0				0	0
15-keto PGE1	0	0	1	0			0		0	0
9-OxoOTrE		2						1	2	1
11dh-2,3-dinor TXB2		0		0				0	0	0

