

**Supplementary Table 1: The hepatic oxylipin levels (nM/g) in *Ephx2<sup>fl/fl</sup>* and *Alb-Cre; Ephx2<sup>fl/fl</sup>* mice under pair-and ethanol (EtOH)-fed states.**

Group	6-keto-PGF1a	9,12,13-TriHOME	9,10,13-TriHOME	PGF2a	PGE2	PGD2	LXA4	THF diol	15,16-DIHOME	8,15-DIHETE	9,10-DIHOME	12,13-DIHOME	17,18-DIHETE	14,15-DIHETE	11,12-DIHETE	12,13-DIHOME	8,9-DIHETE	9,10-DIHOME	19,20-DIHOME	14,15-DIHETE	LTB3
<i>Ephx2<sup>fl/fl</sup></i> -Pair_1	58.8	23.3	13.1	23.2	5.4	8.4	0.7	0.3	10.1	0.9	1.6	1.3	17.4	9.8	3.0	115.3	2.2	62.1	166.4	90.8	0.8
<i>Ephx2<sup>fl/fl</sup></i> -Pair_2	79.9	306.9	114.7	13.2	3.0	8.5	1.2	0.2	11.8	4.3	2.3	1.8	22.8	13.7	5.0	185.7	4.0	105.2	245.1	163.0	1.3
<i>Ephx2<sup>fl/fl</sup></i> -Pair_3	103.7	548.5	352.6	22.4	4.2	18.1	1.6	0.4	13.8	1.7	1.5	21.5	12.1	5.1	136.4	3.1	63.4	165.8	89.0	1.6	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_4	113.7	64.1	40.7	17.6	3.9	13.1	0.9	0.2	15.8	1.2	1.7	1.5	25.4	12.2	4.2	206.5	2.7	76.2	244.4	115.8	1.3
<i>Ephx2<sup>fl/fl</sup></i> -Pair_5	59.7	51.3	22.3	20.3	1.8	11.5	0.8	0.3	20.7	2.2	3.0	2.2	28.0	16.3	5.4	221.9	4.1	98.0	258.3	131.1	1.0
<i>Ephx2<sup>fl/fl</sup></i> -Pair_6	74.8	109.6	52.7	21.2	2.2	12.8	1.0	0.7	27.7	1.9	4.4	2.9	28.6	15.7	5.7	271.3	4.2	116.7	271.7	117.7	0.8
<i>Ephx2<sup>fl/fl</sup></i> -Pair_7	158.1	108.2	38.7	37.3	3.4	13.8	1.1	0.3	7.9	3.0	1.1	1.5	22.1	11.1	3.5	207.5	1.8	78.5	224.1	143.6	1.3
<i>Ephx2<sup>fl/fl</sup></i> -Pair_8	132.4	124.3	56.4	22.6	3.7	11.4	1.1	0.3	18.4	1.1	1.4	1.9	19.6	9.7	3.2	154.9	2.2	46.4	167.6	86.0	0.8
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_1	69.3	180.8	105.4	11.1	1.2	5.6	1.3	0.3	4.5	6.8	0.9	1.0	23.4	8.9	3.0	77.3	1.5	44.4	189.3	57.8	0.7
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_2	94.7	42.9	28.2	21.4	2.6	17.5	1.1	0.2	3.1	1.4	1.2	0.7	25.7	11.6	4.0	71.8	2.4	44.5	224.5	66.9	0.4
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_3	78.8	86.2	56.8	15.1	2.5	10.6	1.0	0.2	3.4	1.7	1.5	1.0	19.3	7.0	3.0	80.7	1.3	53.9	236.8	84.9	1.0
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_4	83.9	138.6	88.5	14.4	2.1	12.0	1.2	0.2	3.6	2.1	1.6	1.1	25.7	9.6	4.3	86.6	2.2	58.8	238.2	79.4	0.9
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_5	69.7	102.4	66.0	17.9	1.3	9.6	0.8	0.3	7.4	1.2	1.5	1.6	24.7	10.9	3.8	148.7	2.3	46.3	218.0	75.0	0.8
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_6	144.2	107.7	58.6	22.5	2.2	6.8	1.2	0.4	4.5	3.6	0.9	1.3	22.5	10.2	3.8	127.7	2.3	42.9	172.5	95.1	0.8
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_7	81.7	94.0	63.5	15.8	2.3	6.5	1.4	0.3	8.4	1.4	1.5	2.1	27.0	19.9	5.9	108.7	3.0	44.5	223.9	78.7	0.8
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_8	166.8	89.2	55.4	33.5	3.2	25.5	1.2	0.9	7.3	2.0	1.9	1.8	19.9	10.3	3.4	132.5	2.1	62.4	208.1	94.2	1.1
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_1	62.3	84.9	40.8	32.0	2.4	9.5	0.8	0.3	8.1	2.0	2.1	1.3	18.1	11.0	4.0	93.1	2.7	67.0	196.2	97.7	0.9
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_2	55.6	65.5	31.4	18.6	3.2	11.2	0.5	0.4	9.3	2.9	2.1	1.2	17.1	8.8	3.9	96.1	2.5	70.2	214.8	96.9	0.9
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_3	109.1	120.7	61.1	23.8	2.4	9.1	0.6	0.2	9.9	2.4	5.3	2.4	16.1	11.2	3.8	135.1	3.0	112.0	189.9	87.5	0.9
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_4	40.0	97.6	54.0	31.7	4.4	12.8	0.8	0.2	18.3	0.8	3.4	1.8	32.7	21.1	6.9	86.7	5.6	66.5	241.8	65.6	0.7
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_5	129.1	107.8	54.5	29.0	2.8	7.8	1.1	0.3	8.6	2.7	2.5	1.1	12.4	7.3	3.3	65.9	2.7	65.3	135.4	65.6	0.6
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_6	104.3	72.6	38.6	42.3	3.4	16.5	1.0	0.9	24.8	6.1	12.3	4.7	47.8	29.0	11.3	261.8	9.7	251.8	151.5	92.0	0.3
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_7	216.6	74.2	32.1	8.8	5.1	10.9	0.8	0.7	56.0	6.8	13.8	9.9	93.6	52.4	18.2	591.2	7.3	127.5	361.7	137.4	0.4
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_8	158.1	119.6	57.3	34.5	2.5	13.1	1.1	0.4	16.6	3.1	4.4	2.8	31.2	15.3	4.5	190.5	3.7	118.2	268.8	118.6	1.4
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_1	197.6	249.0	121.6	25.1	5.8	16.7	4.3	0.6	23.8	5.2	14.1	20.0	23.9	21.3	8.5	174.2	10.9	150.0	258.5	80.1	2.3
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_2	63.5	132.9	75.5	15.0	2.4	5.8	1.1	0.4	2.6	3.8	1.4	0.5	21.3	5.3	4.6	47.2	3.6	39.9	94.2	32.1	0.3
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_3	123.0	57.6	34.5	32.4	2.3	13.0	1.0	0.5	12.0	2.9	4.1	2.4	46.8	9.4	3.3	107.9	4.8	87.8	242.6	60.5	0.5
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_4	53.4	38.8	26.1	13.4	0.9	5.4	0.6	0.3	3.8	1.0	2.0	0.8	26.0	9.1	3.5	40.9	2.1	44.8	113.0	25.1	0.4
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_5	106.1	92.1	58.3	14.3	1.4	7.2	0.7	0.2	3.1	1.9	2.7	0.9	14.6	12.5	4.5	38.8	4.7	50.5	96.5	25.8	0.4
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_6	98.4	39.1	24.0	17.9	1.8	9.9	0.6	0.4	12.1	3.3	3.5	2.4	29.8	15.6	5.8	134.0	2.2	44.9	214.2	61.8	0.6
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -EtOH_7	54.7	74.4	48.2	18.5	1.9	8.7	0.7	0.3	5.3	0.9	1.8	1.2	16.7	17.9	4.4	52.9	5.9	36.5	95.8	23.2	0.3

(continued)

Group	16,17-DIHOME	11,12-DIHETE	13,14-DIHOME	9-HETE	10,11-DIHOME	8,9-DIHETE	8-KODE	13-HETE	15-deoxy PGJ2	7,8-DIHOME	20-HETE	15-HEPE	5,6-DIHEPE	5-HEPE	4,5-DIHOME	13-HODE	9-HODE	15(16) ePOME	15-HETE	9(10) ePOME	17(18) ePETE	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_1	54.3	57.5	28.2	3.3	19.0	31.8	18.1	11.5	14.6	7.4	3.0	3.4	5.4	2.8	30.0	246.5	177.9	4.0	71.2	1.5	1.7	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_2	79.9	99.8	42.6	4.3	32.4	61.1	18.0	5.2	33.6	9.9	3.8	4.3	6.9	5.1	33.5	328.3	260.7	5.4	251.2	1.5	2.1	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_3	57.2	53.9	32.4	3.4	22.3	28.9	7.3	4.1	25.9	5.4	3.1	6.7	2.4	4.2	23.2	232.7	239.4	4.5	117.0	0.5	1.0	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_4	67.2	56.7	29.0	4.6	18.9	37.2	14.1	9.0	24.4	7.5	4.0	10.7	4.4	4.5	14.5	243.9	217.8	4.7	117.4	0.9	1.1	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_5	65.8	61.2	36.9	4.8	18.6	34.5	16.6	13.3	48.7	7.0	4.3	6.7	5.2	4.2	32.4	302.1	256.2	5.5	105.0	1.1	1.6	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_6	70.3	56.2	29.2	4.5	20.4	37.0	17.6	11.9	46.4	7.1	5.8	7.8	5.2	4.0	47.6	406.5	335.0	304.0	14.8	133.3	6.4	6.1
<i>Ephx2<sup>fl/fl</sup></i> -Pair_7	73.1	79.5	34.1	2.7	20.3	40.9	11.8	20.1	34.8	6.3	5.5	10.9	4.7	2.0	23.4	445.7	298.8	4.6	209.1	1.3	1.9	
<i>Ephx2<sup>fl/fl</sup></i> -Pair_8	51.2	47.8	22.9	3.2	16.0	27.1	12.6	12.6	24.2	5.6	13.1	6.2	3.7	2.4	24.8	311.7	271.4	6.7	91.1	2.1	1.7	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_1	77.9	50.8	41.8	2.3	15.8	13.7	9.6	16.1	37.4	2.3	3.7	8.9	1.8	2.1	49.8	592.5	335.5	17.4	231.8	1.3	6.7	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_2	60.9	34.3	24.8	1.4	13.2	16.2	6.5	3.6	28.3	3.3	4.0	6.8	1.3	3.2	73.6	210.7	185.5	7.6	109.3	0.7	7.9	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_3	61.9	42.5	28.8	2.0	15.8	15.0	6.1	3.6	16.9	1.7	7.4	2.0	1.3	2.4	39.9	205.1	194.0	12.5	113.2	0.9	5.1	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_4	63.1	43.7	30.3	2.5	20.0	16.2	8.6	4.3	16.3	3.0	11.2	4.3	1.7	5.4	75.3	249.1	212.0	16.4	153.0	1.0	11.5	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_5	66.8	38.5	26.2	1.9	11.7	10.5	7.3	2.2	13.3	2.3	2.7	3.3	1.2	1.2	40.0	475.2	227.0	207.4	21.1	139.1	1.4	6.4
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_6	56.5	37.0	21.6	1.6	12.1	10.4	6.0	8.6	26.7	2.0	5.5	7.0	1.6	2.9	34.4	421.2	289.7	12.6	207.1	0.9	5.8	
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_7	91.0	36.6	38.4	3.1	25.9	13.0	10.5	2.6	2.6	13.9	2.9	4.2	6.0	1.5	8.4	684.0	306.0	274.5	28.2	128.8	1.7	13.8
<i>Alb-Cre;Ephx2<sup>fl/fl</sup></i> -Pair_8	72.8	44.9	33.7	3.6	25.4	15.7	12.2	7.1	7.4	6.4	2.3	6.7	8.0	1.7	3.5	50.3	427.1	385.8	24.9	172.8	2.2	7.4
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_1	85.4	47.3	51.3	2.7	34.0	23.6	8.5	8.6	10.1	5.3	8.2	6.2	3.9	5.5	55.2	243.8	195.0	6.5	126.3	3.0	3.9	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_2	75.6	48.6	45.3	2.2	14.2	12.8	3.9	2.6	12.0	3.6	5.8	4.2	1.6	4.5	47.6	222.0	216.7	4.2	148.0	1.7	1.6	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_3	57.0	39.6	26.5	5.1	21.1	25.8	8.4	8.4	8.5	14.0	7.3	8.4	4.6	3.7	2.1	61.9	363.8	344.5	4.4	115.8	1.3	1.1
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_4	72.1	21.8	23.3	2.4	18.2	9.5	4.3	2.8	7.8	7.0	3.7	6.5	2.7	5.4	74.8	220.5	228.7	11.0	74.3	4.5	7.9	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_5	51.2	37.5	38.8	4.5	28.3	19.0	9.0	7.6	17.2	6.2	15.7	5.0	3.9	2.8	56.5	303.6	239.9	11.7	81.9	6.0	5.8	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_6	66.7	85.9	47.8	3.7	58.5	42.0	10.8	4.8	6.2	10.2	14.2	3.3	7.7	3.3	100.1	306.4	298.2	12.5	123.0	6.7	5.6	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_7	89.0	33.5	27.4	2.1	19.8	17.0	5.4	5.2	4.1	5.5	27.4	4.8	3.0	8.6	115.9	454.8	265.9	8.0	89.0	2.6	2.4	
<i>Ephx2<sup>fl/fl</sup></i> -EtOH_8	36.5	21.2	13.6	1.9																		