

Supplementary data to:

Original article:

THE ARYL HYDROCARBON RECEPTOR AND RETINOID RECEPTORS CROSS-TALK AT THE *CYP1A1* PROMOTER *IN VITRO*

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Supplementary Table 1: Summary Data_IP CYP1A1**x-fold enrichment**

IP	primer	treatment	input	replicate 1	replicate 2	replicate 3	replicate 4	replicate 5	mean	SD
H3Ac	<i>CYP1A1-3000</i>	<i>control</i>	1.0	4.6	3.1	12.4	23.7	13.9	11.6	8.3
		<i>10 µM at-RA</i>	1.0	30.9	21.6	21.2	23.7		24.3	4.5
		<i>50 nM TCDD</i>	1.0	9.4	25.1	38.0	47.1	52.9	34.5	17.5
	<i>PAX-5</i>	<i>control</i>	1.0	0.7	1.0	0.9	0.4	0.3	0.7	0.3
		<i>10 µM at-RA</i>	1.1	0.7	0.4	1.9	1.5	0.7	1.1	0.6
		<i>50 nM TCDD</i>	1.0	1.4	0.7	2.0	1.2	0.7	1.2	0.6
AHR	<i>CYP1A1-3000</i>	<i>control</i>	0.9	0.7	0.5	1.3	8.6		2.8	3.9
		<i>10 µM at-RA</i>	1.2	7.4	5.2	12.7	3.4		7.2	4.0
		<i>50 nM TCDD</i>	1.0	16.6	32.1	46.1	22.1		29.2	12.9
	<i>PAX-5</i>	<i>control</i>	0.8	1.2	1.2	1.2	1.0		1.2	0.1
		<i>10 µM at-RA</i>	1.0	1.8	1.3	1.3	1.4		1.4	0.3
		<i>50 nM TCDD</i>	1.0	0.7	1.3	1.5	1.2		1.2	0.3
RXRalpha	<i>CYP1A1-3000</i>	<i>control</i>	1.0	6.4	3.3	10.4	10.5		7.7	3.5
		<i>10 µM at-RA</i>	1.0	29.1	17.0	18.9	14.0		19.8	6.5
		<i>50 nM TCDD</i>	1.0	16.4	32.5	10.5	11.9		17.8	10.1
	<i>PAX-5</i>	<i>control</i>	1.1	0.9	0.8	2.1	1.4		1.3	0.6
		<i>10 µM at-RA</i>	1.0	1.7	2.0	1.5	1.4		1.7	0.2
		<i>50 nM TCDD</i>	1.0	1.9	1.5	1.5	2.1		1.7	0.3
RXRbeta	<i>CYP1A1-3000</i>	<i>control</i>	1.1	3.0	1.0	3.9			2.6	1.5
		<i>10 µM at-RA</i>	1.0	2.8	1.8	3.5			2.7	0.9
		<i>50 nM TCDD</i>	1.0	1.4	3.4	4.8			3.2	1.7
	<i>PAX-5</i>	<i>control</i>	1.0	1.5	0.7	1.4			1.2	0.4
		<i>10 µM at-RA</i>	1.0	1.9	1.1	0.5			1.2	0.7
		<i>50 nM TCDD</i>	1.1	2.0	1.3	1.7			1.7	0.3

Supplementary Table 2: Concentration dependency atRA

promoter region	treatment	input		H3Ac		input		AhR	
		replicate 1	replicate 2	replicate 1	replicate 2	replicate 1	replicate 2	replicate 1	replicate 2
CYP1A1 -3.000	<i>control</i>	1.1	0.9	23.3	18.2	1.0	1.0	3.6	8.2
	<i>0,1 μM at-RA</i>	1.0	1.0	49.6	42.3	0.9	1.1	206.5	302.2
	<i>1 μM at-RA</i>	1.0	1.1	28.9	26.1	0.0	0.1	48.9	68.3
	<i>25 μM at-RA</i>	1.0	1.0	10.0	12.8	1.4	0.7	77.8	78.0
PAX-5	<i>control</i>	0.9	1.1	1.5	0.6	0.7	1.4	2.3	3.6
	<i>0,1 μM at-RA</i>	1.5	2.0	0.7	1.3	0.5	1.9	1.7	3.0
	<i>1 μM at-RA</i>	0.7	1.4	1.6	1.0	0.6	1.7	2.8	3.6
	<i>25 μM at-RA</i>	1.0	1.0	1.4	1.2	0.8	1.3	3.0	3.5
promoter region	treatment	input		RXRalpha		input		RXRbeta	
		replicate 1	replicate 2	replicate 1	replicate 2	replicate 1	replicate 2	replicate 1	replicate 2
CYP1A1 -3.000	<i>control</i>	1.2	0.8	10.4	10.5	1.4	0.7	6.6	6.1
	<i>0,1 μM at-RA</i>	0.9	1.1	18.1	16.7	1.1	0.9	9.7	6.8
	<i>1 μM at-RA</i>	1.0	1.0	16.4	14.8	1.5	0.6	2.0	1.6
	<i>25 μM at-RA</i>	1.1	0.9	24.0	36.8	1.3	0.8	26.9	27.1
PAX-5	<i>control</i>	0.9	1.1	3.7	3.4	0.7	1.4	0.8	1.2
	<i>0,1 μM at-RA</i>	0.6	1.7	2.2	1.4	0.3	0.8	2.6	0.7
	<i>1 μM at-RA</i>	1.3	0.8	2.4	2.6	0.6	1.6	3.6	1.5
	<i>25 μM at-RA</i>	1.1	0.9	3.5	1.1	0.8	1.3	1.5	1.2

Supplementary Table 3: Induction of gene expression *CYP1A1*

treatment	1. replicate	2. replicate	3. replicate	mean	standard deviation
<i>control</i>	1.0	1.2	0.8	1.0	0.17
<i>50 nM TCDD</i>	297.9	523.4	454.4	425.3	115.56
<i>0,01 µM at-RA</i>	1.6	0.5	0.9	1.0	0.54
<i>0,1 µM at-RA</i>	1.4	1.4	1.1	1.3	0.17
<i>1 µM at-RA</i>	1.6	1.5	1.1	1.4	0.29
<i>10 µM at-RA</i>	2.6	2.7	5.3	3.5	1.50
<i>25 µM at-RA</i>	4.6	3.0	2.9	3.5	0.99
<i>10 nM CD2608</i>	2.0	2.6	1.5	2.0	0.60
<i>100 nM Am580</i>	1.6	1.4	2.5	1.8	0.60
<i>1 µM at-RA + 50 nM TCDD</i>	593.3	750.1	871.7	738.4	139.55
<i>10 nM CD2608 + 50 nM TCDD</i>	828.4	1.066.6	710.0	868.3	181.61