Supporting Information S2

Control of gene expression by the Retinoic acid-related Orphan Receptor alpha in HepG2 human hepatoma cells

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Micro-array analysis of the effects of a stable RORα over-expression on gene expression in HepG2 cells.

Complementary Table to Table 1 showing all the sequences (sequences corresponding to known genes and sequences not assigned to a known gene) found either up- or down-regulated in response to RORα over-expression.

HepG2 cells were stably transfected with the pCMX-hRORα1 expression vector or with the pCMX insertless vector as a control. Total RNAs were extracted and mRNA levels were compared between these two experimental conditions with Agilent micro-arrays (n = 3 independent pools of transfected cells). This analysis revealed several genes whose expression was up-regulated or down-regulated by at least 2 fold in cells overexpressing RORα than in control cells. The gene symbols, gene description, genbank accession numbers and feature numbers on micro-arrays are given in columns 1 to 4. Gene expression levels in RORα over-expressing cells are expressed relatively to those in control cells. Results are given as fold changes (columns 5, 7, 9) and corresponding *P*values (columns 6, 8, 10). The means and S.E.M. of the fold changes are given in columns 11 and 12. All *P*values are less than 0.01 except one over three for *AGRP*.

Fold more than 2, p-value less than 0,01 for all the 3 replicates (except for one AGRP replicate)

GeneSymbol	Gene description	Genbank accession	Feature Number	fold 1	PValueLogRatio 1	fold 1	PValueLogRatio 2	fold 3	PValueLogRatio 3	Mean	S.E.M.
UP-REGULATED											
PLG	Homo sapiens plasminogen (PLG), mRNA [NM_000301]	**NM_000301**	12618	25,8350	6,3981E-15	27,2424	1,3905E-19	29,6528	2,1463E-19	**27,5768**	**1,11**
PLG	Homo sapiens plasminogen (PLG), mRNA [NM_000301]	**NM_000301**	31563	9,1322	1,4887E-12	20,9459	2,0886E-18	24,1585	8,8075E-19	**18,0789**	**4,57**
RORA	Homo sapiens RAR-related orphan receptor A (RORA), transcript variant 2, mRNA [NM_134260]	**NM_134260**	31288	12,9788	3,7275E-20	16,4481	7,2882E-21	13,8347	2,3283E-20	**14,4205**	**1,04**
LPA	Homo sapiens lipoprotein, Lp(a) (LPA), mRNA [NM_005577]	**NM_005577**	31776	10,0751	3,5886E-12	8,4043	1,0202E-14	9,5955	2,4666E-16	**9,3583**	**0,50**
FBXL17	Homo sapiens F-box and leucine-rich repeat protein 17, mRNA (cDNA clone IMAGE:4215262), partial cds. [BC018548]	**BC018548**	391	5,4904	1,1319E-08	2,6927	9,2040E-05	2,1936	4,8845E-05	**3,4589**	**1,03**
G6PC	Homo sapiens glucose-6-phosphatase, catalytic subunit (G6PC), mRNA [NM_000151]	**NM_000151**	19594	2,7782	6,7296E-07	3,0260	4,0621E-07	2,6103	3,2640E-06	**2,8048**	**0,12**
SPARC	Homo sapiens secreted protein, acidic, cysteine-rich (osteonectin) (SPARC), mRNA [NM_003118]	**NM_003118**	4259	2,8443	1,1311E-09	2,2330	5,1936E-07	2,0311	5,6378E-06	**2,3695**	**0,24**
AGRP	Homo sapiens agouti related protein homolog (mouse) (AGRP), transcript variant 1, mRNA [NM_001138]	**NM_001138**	21543	1,4368	1,3359E-01	2,7437	1,8983E-03	2,6587	6,1903E-04	**2,2797**	**0,42**
	Q8PBG7 (Q8PBG7) Riboflavin biosynthesis protein, partial (6%) [THC2317871]	***THC2317871***	*39638*	*2,1643*	*3,2376E-04*	*2,4661*	*5,1446E-05*	*2,0864*	*7,1564E-05*	***2,2389***	***0,12***
NR1D2	Homo sapiens nuclear receptor subfamily 1, group D, member 2, mRNA (cDNA clone IMAGE:3912370), partial cds. [BC015929]	**BC015929**	31530	2,0783	3,0420E-05	2,9059	2,0246E-08	1,6813	1,8611E-03	**2,2219**	**0,36**
SMOC1	Homo sapiens SPARC related modular calcium binding 1 (SMOC1), transcript variant 2, mRNA [NM_022137]	**NM_022137**	32907	2,1044	2,5417E-06	1,7507	2,0939E-04	2,6761	5,1054E-09	**2,1770**	**0,27**
HEPN1	Homo sapiens associated with liver cancer (HEPN1), mRNA [NM_001037558]	**NM_001037558**	34970	1,8068	2,5819E-03	2,1847	1,5170E-05	2,4995	9,6517E-07	**2,1636**	**0,20**
FOXO4 (MLLT7)	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 7 (MLLT7), mRNA [NM_005938]	**NM_005938**	42837	1,9082	4,5203E-03	1,9981	1,0212E-03	2,2200	9,1436E-05	**2,0421**	**0,09**
DOWN-REGULATED											
	Homo sapiens clone FLB9714 PRO2619 mRNA, complete cds. [AF130077]	***AF130077***	*41972*	*0,5690*	*2,0520E-04*	*0,4813*	*3,9126E-06*	*0,4471*	*5,3386E-07*	***0,4991***	***0,04***
	Unknown	***THC2290704***	*17190*	*0,4770*	*5,1612E-03*	*0,5837*	*9,6946E-03*	*0,4018*	*3,3592E-04*	***0,4875***	***0,05***
	AA906057 oj90d07.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1505581 3', mRNA sequence [AA906057]	***AA906057***	*12231*	*0,3960*	*1,3178E-04*	*0,5552*	*6,6930E-03*	*0,4593*	*1,2755E-04*	***0,4701***	***0,05***
	Homo sapiens full length insert cDNA clone ZD54C08. [AF086329]	***AF086329***	*24011*	*0,4937*	*9,0537E-06*	*0,4160*	*1,4739E-07*	*0,5004*	*1,1650E-05*	***0,4700***	***0,03***
	UI-H-FH1-bfk-o-16-0-UI.s1 NCI_CGAP_FH1 Homo sapiens cDNA clone UI-H-FH1-bfk-o-16-0-UI 3', mRNA sequence [BU618641]	***BU618641***	*8692*	*0,3221*	*1,2861E-06*	*0,4774*	*2,4852E-04*	*0,6019*	*3,2313E-03*	***0,4671***	***0,08***
	Unknown	***A_32_P45087***	*1685*	*0,5485*	*1,2095E-02*	*0,3378*	*6,2418E-06*	*0,4970*	*1,4128E-03*	***0,4611***	***0,06***
	ze57f04.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363103 3' similar to gb:X62534 HIGH MOBILITY GROUP PROTEIN HMG2 (HU	***AA019203***	*42520*	*0,4838*	*7,8389E-03*	*0,4019*	*8,6242E-05*	*0,4912*	*9,8583E-04*	***0,4590***	***0,03***
	AI919230 qy30h02.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013555 3', mRNA sequence [AI919230]	***AI919230***	*34849*	*0,4073*	*1,8662E-04*	*0,5321*	*1,6148E-03*	*0,4110*	*5,2675E-05*	***0,4502***	***0,04***
	BX419477 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone CS0DF017YM02 3-PRIME, mRNA sequence [BX419477]	***BX419477***	*6517*	*0,4720*	*2,1893E-03*	*0,4411*	*2,4812E-04*	*0,4199*	*1,7249E-05*	***0,4443***	***0,02***
	Unknown	***A_32_P20014***	*777*	*0,2931*	*9,0720E-08*	*0,4402*	*1,7503E-05*	*0,5817*	*7,9199E-03*	***0,4384***	***0,08***
	BE749146 601123310F1 NIH_MGC_5 Homo sapiens cDNA clone IMAGE:3348051 5', mRNA sequence [BE749146]	***BE749146***	*18408*	*0,4756*	*2,0711E-03*	*0,3673*	*1,9552E-04*	*0,4549*	*3,9193E-04*	***0,4326***	***0,03***
	BE719776 RC3-HT0865-260700-011-b02 HT0865 Homo sapiens cDNA, mRNA sequence [BE719776]	***BE719776***	*28582*	*0,3165*	*1,1636E-05*	*0,4731*	*4,6521E-04*	*0,3754*	*1,1011E-06*	***0,3883***	***0,05***
	Unknown	***A_32_P135790***	*21089*	*0,3839*	*1,2654E-07*	*0,4256*	*1,7949E-06*	*0,2813*	*2,6318E-11*	***0,3636***	***0,04***
LGI2	Homo sapiens leucine-rich repeat LGI family, member 2 (LGI2), mRNA [NM_018176]	**NM_018176**	24947	0,1917	1,8768E-05	0,3630	4,5701E-04	0,3684	2,4577E-03	**0,3077**	**0,06**
ADIPOQ	Homo sapiens adiponectin, C1Q and collagen domain containing (ADIPOQ), mRNA [NM_004797]	**NM_004797**	36194	0,3411	3,2106E-03	0,1707	6,5835E-04	0,1700	4,5097E-04	**0,2272**	**0,06**