

Top 5 over-enriched pathways from Pathway Interaction Database

AR Binding Sites - Shared E2 and DHT

<u>p-value</u>	<u>q-value</u>	<u>pathway</u>
3.69E-04	2.41E-01	FOXA1 transcription factor network
1.32E-03	2.41E-01	Validated targets of C-MYC transcriptional repression
1.63E-03	2.41E-01	Validated nuclear estrogen receptor alpha network
2.28E-03	2.41E-01	Regulation of nuclear beta catenin signaling and target gene transcription
2.70E-03	2.41E-01	Notch-mediated HES/HEY network

AR Binding Sites - E2 Only

<u>p-value</u>	<u>q-value</u>	<u>pathway</u>
2.88E-07	3.74E-04	Validated nuclear estrogen receptor alpha network
4.65E-07	3.74E-04	FOXA1 transcription factor network
7.19E-05	2.31E-02	C-MYB transcription factor network
9.02E-05	2.42E-02	Signaling events mediated by Hepatocyte Growth Factor Receptor (c-Met)
3.08E-04	3.30E-02	Calcineurin-regulated NFAT-dependent transcription in lymphocytes

AR Binding Sites - DHT Only

<u>p-value</u>	<u>q-value</u>	<u>pathway</u>
1.32E-04	2.87E-02	IL2-mediated signaling events
2.64E-04	4.39E-02	IL2 signaling events mediated by PI3K
5.22E-04	4.75E-02	Beta1 integrin cell surface interactions
6.21E-04	4.75E-02	FOXA1 transcription factor network
1.12E-03	6.24E-02	Notch-mediated HES/HEY network

Supplementary Table S2

Gene	Common_name	Control_mean	Treatment_mean	Fold_change	P-value	Q-value
ENSG00000010438	PRSS3	24.37	73.87	3.03	0.0113	0.1508
ENSG00000134258	VTCN1	3.51	9.58	2.73	0.0138	0.1617
ENSG00000174156	GSTA3	8.43	22.21	2.63	0.0049	0.1124
ENSG00000188257	PLA2G2A	3.37	8.42	2.5	0.0007	0.0624
ENSG00000110484	SCGB2A2	356.13	891.58	2.5	0.0027	0.0964
ENSG00000142515	KLK3	4.44	10.88	2.45	0.0073	0.1309
ENSG00000124935	SCGB1D2	80.95	192.47	2.38	0.0113	0.1508
ENSG00000120875	DUSP4	14.09	32.95	2.34	0.0039	0.1025
ENSG00000096088	PGC	21.54	48.65	2.26	0.0008	0.0643
ENSG00000173467	AGR3	12.74	26.92	2.11	0.0093	0.1449
ENSG00000129654	FOXJ1	40.02	79.71	1.99	0.0000	0.0194
ENSG00000235123	DSCAM-AS1	16.03	31.71	1.98	0.0037	0.1012
ENSG00000202077	U1	12.27	23.9	1.95	0.0292	0.2169
ENSG00000178372	CALML5	34.57	66.74	1.93	0.0007	0.0624
ENSG00000179902	C1orf194	17.75	34.27	1.93	0.0007	0.0624
ENSG00000204983	PRSS1	18.02	34.79	1.93	0.0173	0.1768
ENSG00000250510	GPR162	7.02	13.46	1.92	0.0069	0.1274
ENSG00000129990	SYT5	22.9	43.23	1.89	0.0001	0.0337
ENSG00000250606	U66061.39	10.17	19.07	1.88	0.0242	0.2058
ENSG00000238671	SNORA78	9.99	18.7	1.87	0.0138	0.1617
ENSG00000183569	SERHL2	167	311.05	1.86	0.0024	0.0919
ENSG00000188931	C1orf192	13.98	25.7	1.84	0.0011	0.0685
ENSG00000153347	FAM81B	10.14	18.4	1.81	0.0006	0.0624
ENSG00000168405	CMAHP	8.52	15.32	1.8	0.0129	0.1587
ENSG00000259120	C17orf110	19.09	34.11	1.79	0.0387	0.2409
ENSG00000163810	TGM4	9.79	17.33	1.77	0.0056	0.1194
ENSG00000186973	FAM183A	32.16	55.88	1.74	0.0041	0.1052
ENSG00000139445	FOXN4	7.05	12.23	1.73	0.0003	0.0580
ENSG00000159713	TPPP3	56.31	97.22	1.73	0.0004	0.0580
ENSG00000130513	GDF15	59.25	102.79	1.73	0.0036	0.1007
ENSG00000128536	CDHR3	9.67	16.3	1.69	0.0268	0.2130
ENSG00000243705	RP11-178L8.1	72.87	122.49	1.68	0.0292	0.2169
ENSG00000106541	AGR2	1769.76	2977.25	1.68	0.0297	0.2192
ENSG00000102003	SYP	8.76	14.6	1.67	0.0042	0.1052
ENSG00000145491	ROPN1L	9.37	15.54	1.66	0.0012	0.0698
ENSG00000121270	ABCC11	13.06	21.68	1.66	0.0064	0.1257
ENSG00000124237	C20orf85	13.48	22.29	1.65	0.0007	0.0624
ENSG00000113296	THBS4	19.32	31.92	1.65	0.0108	0.1508
ENSG00000159763	PIP	25.38	41.64	1.64	0.0281	0.2153
ENSG00000215217	C5orf49	13.35	21.77	1.63	0.0004	0.0580
ENSG00000164287	CDC20B	24.47	39.98	1.63	0.0050	0.1124
ENSG00000172551	MUCL1	27.98	44.16	1.58	0.0150	0.1670
ENSG00000173947	C1orf88	9.73	15.32	1.57	0.0031	0.0990
ENSG00000122711	SPINK4	59.37	93.43	1.57	0.0313	0.2204

ENSG00000114115	RBP1	18.52	28.66	1.55	0.0082	0.1340
ENSG00000228974	AC006483.5	33.35	51.53	1.55	0.0249	0.2082
ENSG00000187689	AMTN	39.18	60.85	1.55	0.0434	0.2538
ENSG00000187134	AKR1C1	17.52	27.04	1.54	0.0034	0.0990
ENSG00000125398	SOX9	10.61	16.33	1.54	0.0036	0.1003
ENSG00000134575	ACP2	114.67	175.81	1.53	0.0059	0.1212
ENSG00000173221	GLRX	30.92	47.33	1.53	0.0091	0.1441
ENSG00000117472	TSPAN1	348.03	529.94	1.52	0.0063	0.1256
ENSG00000122176	FMOD	79.09	119.73	1.51	0.0253	0.2095
ENSG00000172183	ISG20	55	82.91	1.51	0.0425	0.2522
ENSG00000160188	RSPH1	13.46	20.22	1.5	0.0059	0.1212
ENSG00000152669	CCNO	78.77	117.67	1.49	0.0008	0.0643
ENSG00000064787	BCAS1	64.47	96.06	1.49	0.0066	0.1257
ENSG00000086548	CEACAM6	1054.42	1569.16	1.49	0.0171	0.1761
ENSG00000111319	SCNN1A	28.4	41.45	1.46	0.0016	0.0789
ENSG00000004838	ZMYND10	24.42	35.61	1.46	0.0135	0.1617
ENSG00000152611	CAPSL	14.87	21.72	1.46	0.0181	0.1815
ENSG00000076555	ACACB	28.63	41.39	1.45	0.0067	0.1267
ENSG00000163083	INHBB	21.06	30.16	1.43	0.0014	0.0752
ENSG00000253346	CTD-3107M8.1	18.23	26.14	1.43	0.0309	0.2197
ENSG00000092068	SLC7A8	28.96	40.83	1.41	0.0008	0.0626
ENSG00000078804	TP53INP2	25.72	36.38	1.41	0.0030	0.0982
ENSG00000231064	RP11-263K19.4	16.94	23.92	1.41	0.0353	0.2335
ENSG00000163898	LIPH	24.57	34.67	1.41	0.0445	0.2566
ENSG00000082781	ITGB5	331.98	463.91	1.4	0.0000	0.0175
ENSG00000173267	SNCG	19.68	27.49	1.4	0.0068	0.1274
ENSG00000176788	BASP1	52.64	73.53	1.4	0.0074	0.1314
ENSG00000115884	SDC1	46.97	65.98	1.4	0.0116	0.1508
ENSG00000090020	SLC9A1	35.25	49.4	1.4	0.0125	0.1556
ENSG00000122735	DNAI1	21.6	30.23	1.4	0.0164	0.1747
ENSG00000214548	MEG3	17.94	24.95	1.39	0.0016	0.0789
ENSG00000137267	TUBB2A	32.65	45.37	1.39	0.0038	0.1012
ENSG00000165272	AQP3	1145.98	1591.1	1.39	0.0182	0.1823
ENSG00000076864	RAP1GAP	86.42	119.31	1.38	0.0038	0.1012
ENSG00000168734	PKIG	20.4	28.18	1.38	0.0096	0.1474
ENSG00000135480	KRT7	659.21	908.19	1.38	0.0166	0.1747
ENSG00000157613	CREB3L1	142.25	195.73	1.38	0.0181	0.1816
ENSG00000165322	ARHGAP12	49.49	68.14	1.38	0.0370	0.2361
ENSG00000148358	GPR107	83.44	114.86	1.38	0.0438	0.2542
ENSG00000127528	KLF2	45.66	62.76	1.37	0.0133	0.1613
ENSG00000019102	VSIG2	19.84	27.14	1.37	0.0135	0.1617
ENSG00000005001	PRSS22	30.11	41.13	1.37	0.0305	0.2195
ENSG00000084207	GSTP1	71.44	97.69	1.37	0.0443	0.2559
ENSG00000213085	CCDC19	19.82	26.86	1.36	0.0005	0.0624
ENSG00000010626	LRRC23	27.48	37.46	1.36	0.0088	0.1401
ENSG00000198832	RP3-412A9.11	42.82	58.2	1.36	0.0122	0.1540
ENSG00000167080	B4GALNT2	37.41	50.8	1.36	0.0265	0.2130

ENSG00000135046	ANXA1	47.65	64.67	1.36	0.0430	0.2535
ENSG00000198788	MUC2	480.51	650.83	1.35	0.0026	0.0957
ENSG00000167646	C19orf51	89.97	121.7	1.35	0.0065	0.1257
ENSG00000158555	GDPD5	27.05	36.53	1.35	0.0121	0.1527
ENSG00000167916	KRT24	167.69	224.57	1.34	0.0148	0.1664
ENSG00000229028	KRT223P	123.42	165.22	1.34	0.0165	0.1747
ENSG00000196924	FLNA	352.39	471.88	1.34	0.0395	0.2422
ENSG00000129295	LRRC6	17.96	23.9	1.33	0.0130	0.1587
ENSG00000154553	PDLIM3	23.74	31.67	1.33	0.0168	0.1752
ENSG00000167653	PSCA	506.04	671.23	1.33	0.0348	0.2310
ENSG00000114473	IQCG	21.85	28.91	1.32	0.0192	0.1853
ENSG00000116885	OSCP1	16.13	21.25	1.32	0.0268	0.2130
ENSG00000242136	RP11-734K21.2	41.53	54.59	1.31	0.0218	0.1962
ENSG00000074370	ATP2A3	199.78	259.75	1.3	0.0001	0.0390
ENSG00000120306	C5orf32	69.49	90.43	1.3	0.0103	0.1505
ENSG00000100422	CERK	28.8	37.36	1.3	0.0223	0.1987
ENSG00000161714	PLCD3	108.42	140.55	1.3	0.0299	0.2195
ENSG00000125148	MT2A	26.27	34.14	1.3	0.0382	0.2406
ENSG00000104140	RHOV	40.29	51.94	1.29	0.0041	0.1052
ENSG00000110080	ST3GAL4	122.4	158.06	1.29	0.0113	0.1508
ENSG00000159259	CHAF1B	19.15	24.61	1.29	0.0480	0.2618
ENSG00000154640	BTG3	19.54	24.92	1.28	0.0105	0.1505
ENSG00000115468	EFHD1	35.33	45.38	1.28	0.0109	0.1508
ENSG00000117519	CNN3	42.57	54.36	1.28	0.0286	0.2162
ENSG00000159921	GNE	18.68	23.9	1.28	0.0406	0.2464
ENSG00000156587	UBE2L6	177.35	226.29	1.28	0.0470	0.2610
ENSG00000124762	CDKN1A	143.27	182.52	1.27	0.0021	0.0888
ENSG00000065882	TBC1D1	32.88	41.69	1.27	0.0137	0.1617
ENSG00000135926	TMBIM1	58.94	74.44	1.26	0.0082	0.1340
ENSG00000103460	TOX3	20.57	25.83	1.26	0.0306	0.2195
ENSG00000124635	HIST1H2BJ	30.2	38.04	1.26	0.0309	0.2197
ENSG00000061273	HDAC7	45.75	57.77	1.26	0.0455	0.2584
ENSG00000156453	PCDH1	49.01	61.42	1.25	0.0041	0.1052
ENSG00000126106	TMEM53	23.03	28.76	1.25	0.0051	0.1124
ENSG00000160862	AZGP1	211.43	264.24	1.25	0.0189	0.1835
ENSG00000138772	ANXA3	53.51	66.66	1.25	0.0217	0.1960
ENSG00000214274	ANG	24.75	31.04	1.25	0.0434	0.2538
ENSG00000159348	CYB5R1	126.71	157.02	1.24	0.0042	0.1052
ENSG00000167632	TRAPP9	61.76	76.73	1.24	0.0137	0.1617
ENSG00000204385	SLC44A4	176.59	219.48	1.24	0.0162	0.1738
ENSG00000021300	PLEKHB1	63.21	78.1	1.24	0.0436	0.2541
ENSG00000131238	PPT1	283.81	349.8	1.23	0.0298	0.2195
ENSG00000124466	LYPD3	138.59	168.64	1.22	0.0178	0.1802
ENSG00000123989	CHPF	66.8	81.17	1.22	0.0309	0.2197
ENSG00000114315	HES1	46	55.95	1.22	0.0327	0.2242
ENSG00000112561	TFEB	23.79	29.07	1.22	0.0380	0.2399
ENSG00000115616	SLC9A2	32.02	38.85	1.21	0.0067	0.1261

ENSG00000155366	RHOC	350.22	423.7	1.21	0.0159	0.1730
ENSG00000122359	ANXA11	503.45	611.28	1.21	0.0449	0.2570
ENSG00000021355	SERPINB1	54.63	65.38	1.2	0.0168	0.1752
ENSG00000158710	TAGLN2	403.73	485.18	1.2	0.0207	0.1924
ENSG00000086062	B4GALT1	229.92	275.92	1.2	0.0314	0.2204
ENSG00000188603	CLN3	140.34	168.56	1.2	0.0336	0.2267
ENSG00000136783	NIPSNAP3A	38.04	31.78	-1.2	0.0004	0.0580
ENSG00000086666	ZFAND6	63.86	53.2	-1.2	0.0006	0.0624
ENSG00000107643	MAPK8	69.25	57.89	-1.2	0.0015	0.0760
ENSG00000112893	MAN2A1	42.99	35.97	-1.2	0.0029	0.0982
ENSG00000125691	RPL23	1420.41	1185.77	-1.2	0.0045	0.1094
ENSG00000133835	HSD17B4	640.24	534.67	-1.2	0.0050	0.1124
ENSG00000171793	CTPS	74.26	62.14	-1.2	0.0057	0.1207
ENSG00000138604	GLCE	33.04	27.48	-1.2	0.0058	0.1207
ENSG00000111231	GPN3	119.42	99.64	-1.2	0.0081	0.1340
ENSG00000166326	TRIM44	38.74	32.19	-1.2	0.0118	0.1516
ENSG00000091527	CDV3	169.25	140.55	-1.2	0.0136	0.1617
ENSG00000115419	GLS	52.82	43.88	-1.2	0.0170	0.1752
ENSG00000131844	MCCC2	173.93	145.42	-1.2	0.0185	0.1832
ENSG00000145293	ENOPH1	128.09	106.83	-1.2	0.0216	0.1960
ENSG00000115365	LANCL1	43.53	36.17	-1.2	0.0228	0.2014
ENSG00000149485	FADS1	132.16	110.54	-1.2	0.0242	0.2058
ENSG00000105135	ILVBL	125.62	104.5	-1.2	0.0274	0.2135
ENSG00000126214	KLC1	120.82	100.44	-1.2	0.0278	0.2151
ENSG00000182481	KPNA2	307.56	256.75	-1.2	0.0317	0.2210
ENSG00000037749	MFAP3	40.46	33.7	-1.2	0.0320	0.2222
ENSG00000108506	INTS2	41	34.27	-1.2	0.0340	0.2284
ENSG00000125629	INSIG2	101.36	84.45	-1.2	0.0346	0.2301
ENSG00000078403	MLLT10	33.03	27.46	-1.2	0.0360	0.2353
ENSG00000143590	EFNA3	60.79	50.49	-1.2	0.0372	0.2364
ENSG00000253352	TUG1	51.18	42.75	-1.2	0.0418	0.2502
ENSG00000122873	CISD1	61.71	51.5	-1.2	0.0448	0.2566
ENSG00000071794	HLTF	60.2	49.97	-1.2	0.0466	0.2607
ENSG00000116478	HDAC1	105.82	88.25	-1.2	0.0493	0.2657
ENSG00000143353	LYPLAL1	144.55	119.29	-1.21	0.0002	0.0444
ENSG00000136381	IREB2	31.41	25.87	-1.21	0.0002	0.0444
ENSG00000065135	GNAI3	54.61	45.04	-1.21	0.0009	0.0685
ENSG00000140367	UBE2Q2	42.34	35.12	-1.21	0.0011	0.0685
ENSG00000118246	FASTKD2	46.05	38.1	-1.21	0.0019	0.0831
ENSG00000121058	COIL	77.8	64.38	-1.21	0.0027	0.0964
ENSG00000070214	SLC44A1	30.86	25.44	-1.21	0.0028	0.0974
ENSG00000168036	CTNNB1	283.93	234.23	-1.21	0.0030	0.0982
ENSG00000174442	ZWILCH	43.08	35.64	-1.21	0.0034	0.0990
ENSG00000170340	B3GNT2	33.58	27.86	-1.21	0.0035	0.1003
ENSG00000089902	RCOR1	29.27	24.27	-1.21	0.0038	0.1012
ENSG00000165704	HPRT1	97.84	80.73	-1.21	0.0050	0.1124
ENSG00000138459	SLC35A5	35.1	29.04	-1.21	0.0054	0.1150

ENSG00000204253	AC019178.1	65.26	53.75	-1.21	0.0064	0.1257
ENSG00000115368	WDR75	57.8	47.83	-1.21	0.0069	0.1274
ENSG00000106443	PHF14	57.4	47.27	-1.21	0.0078	0.1320
ENSG00000089289	IGBP1	57.95	48.01	-1.21	0.0092	0.1446
ENSG00000164134	NAA15	60.13	49.6	-1.21	0.0094	0.1449
ENSG00000172888	ZNF621	29.78	24.71	-1.21	0.0103	0.1505
ENSG00000198791	CNOT7	166.39	137.88	-1.21	0.0106	0.1505
ENSG00000065150	IPO5	67.77	55.94	-1.21	0.0118	0.1516
ENSG00000121691	CAT	31.82	26.25	-1.21	0.0169	0.1752
ENSG00000116747	TROVE2	29.3	24.13	-1.21	0.0172	0.1762
ENSG00000153485	C14orf109	47.25	39.02	-1.21	0.0186	0.1832
ENSG0000006576	PHTF2	41.09	33.95	-1.21	0.0197	0.1886
ENSG00000180185	FAHD1	30.19	24.95	-1.21	0.0201	0.1908
ENSG00000135486	HNRNPA1	133.97	110.31	-1.21	0.0207	0.1924
ENSG00000166037	CEP57	28.98	23.87	-1.21	0.0227	0.2014
ENSG00000136518	ACTL6A	456.41	375.75	-1.21	0.0275	0.2136
ENSG00000164631	ZNF12	31.87	26.31	-1.21	0.0281	0.2153
ENSG00000109046	WSB1	60.15	49.7	-1.21	0.0321	0.2222
ENSG00000131747	TOP2A	54.8	45.26	-1.21	0.0386	0.2408
ENSG00000180211	RP1-278E11.3	418.96	345.93	-1.21	0.0393	0.2420
ENSG00000138777	PPA2	300.35	248.46	-1.21	0.0425	0.2522
ENSG00000138246	DNAJC13	65.46	53.96	-1.21	0.0437	0.2541
ENSG00000169288	MRPL1	87.09	71.75	-1.21	0.0474	0.2610
ENSG00000115942	ORC2	63.3	52.49	-1.21	0.0491	0.2656
ENSG00000144677	CTDSPL	85.99	71.12	-1.21	0.0500	0.2674
ENSG00000108406	DHX40	71.45	58.71	-1.22	0.0001	0.0266
ENSG00000112701	SENP6	42.86	35.18	-1.22	0.0007	0.0624
ENSG00000148690	FRA10AC1	34.38	28.29	-1.22	0.0008	0.0625
ENSG00000130935	NOL11	81.39	66.82	-1.22	0.0011	0.0685
ENSG00000144283	PKP4	104.36	85.89	-1.22	0.0032	0.0990
ENSG00000172262	ZNF131	48.77	39.88	-1.22	0.0039	0.1025
ENSG00000113387	SUB1	586.97	482.32	-1.22	0.0041	0.1052
ENSG00000166226	CCT2	827.16	680.59	-1.22	0.0050	0.1124
ENSG00000135766	EGLN1	69.84	57.35	-1.22	0.0052	0.1130
ENSG00000233846	RP11-307L3.2	41.9	34.32	-1.22	0.0071	0.1293
ENSG00000162819	BROX	90.35	74	-1.22	0.0071	0.1293
ENSG00000165494	PCF11	31.71	25.99	-1.22	0.0105	0.1505
ENSG00000125170	DOK4	34.03	27.99	-1.22	0.0107	0.1505
ENSG00000124532	MRS2	34.64	28.31	-1.22	0.0123	0.1543
ENSG00000147471	PROSC	713.53	586.52	-1.22	0.0163	0.1744
ENSG00000113810	SMC4	147.26	120.8	-1.22	0.0203	0.1908
ENSG00000254244	PAICSP4	35.75	29.27	-1.22	0.0245	0.2065
ENSG00000067066	SP100	37.39	30.65	-1.22	0.0261	0.2129
ENSG00000117139	KDM5B	83.75	68.82	-1.22	0.0267	0.2130
ENSG00000141425	RPRD1A	65.6	53.7	-1.22	0.0279	0.2153
ENSG00000114346	ECT2	74.98	61.26	-1.22	0.0289	0.2169
ENSG00000169251	NMD3	118.92	97.36	-1.22	0.0354	0.2336

ENSG00000184428	TOP1MT	38.08	31.11	-1.22	0.0363	0.2355
ENSG00000225200	AB019441.29	66.77	54.83	-1.22	0.0371	0.2364
ENSG00000137710	RDX	49.29	40.46	-1.22	0.0379	0.2399
ENSG00000184916	JAG2	34.5	28.3	-1.22	0.0456	0.2584
ENSG00000117593	DARS2	76.24	62.3	-1.22	0.0497	0.2672
ENSG00000121644	PPPDE1	28.03	22.78	-1.23	0.0001	0.0339
ENSG00000247556	AC012652.1	32.11	26.05	-1.23	0.0005	0.0580
ENSG00000046604	DSG2	64.5	52.54	-1.23	0.0009	0.0667
ENSG00000183309	ZNF623	40.29	32.84	-1.23	0.0015	0.0760
ENSG00000133706	LARS	181.84	147.77	-1.23	0.0017	0.0789
ENSG00000115866	DARS	223.01	180.67	-1.23	0.0050	0.1124
ENSG00000123737	EXOSC9	76.18	62.13	-1.23	0.0051	0.1124
ENSG00000138293	NCOA4	91.2	73.94	-1.23	0.0058	0.1211
ENSG00000187735	TCEA1	33.34	27.12	-1.23	0.0065	0.1257
ENSG00000134717	BTF3L4	83.96	68.01	-1.23	0.0079	0.1320
ENSG00000235582	RP11-448G4.2	46.44	37.75	-1.23	0.0082	0.1340
ENSG00000196591	HDAC2	132.19	107.91	-1.23	0.0098	0.1485
ENSG00000198146	ZNF770	26.85	21.82	-1.23	0.0111	0.1508
ENSG00000156970	BUB1B	35.04	28.44	-1.23	0.0140	0.1617
ENSG00000127334	DYRK2	37.17	30.14	-1.23	0.0169	0.1752
ENSG00000066427	ATXN3	52.03	42.36	-1.23	0.0184	0.1830
ENSG00000159131	GART	98.15	79.8	-1.23	0.0214	0.1960
ENSG00000164182	NDUFAF2	32.97	26.83	-1.23	0.0243	0.2058
ENSG00000138166	DUSP5	29.46	24.04	-1.23	0.0256	0.2102
ENSG00000071082	RPL31	1207.34	982.78	-1.23	0.0263	0.2129
ENSG00000088205	DDX18	111.44	90.81	-1.23	0.0306	0.2195
ENSG00000141580	WDR45L	234.17	189.91	-1.23	0.0343	0.2291
ENSG00000138434	SSFA2	151.42	123.17	-1.23	0.0416	0.2499
ENSG00000130810	PPAN	47.15	38.39	-1.23	0.0434	0.2538
ENSG00000074800	ENO1	894.1	725.11	-1.23	0.0492	0.2656
ENSG00000169018	FEM1B	30.47	24.52	-1.24	0.0013	0.0736
ENSG00000055044	NOP58	152.58	123.07	-1.24	0.0029	0.0982
ENSG00000119471	HSDL2	63.01	50.85	-1.24	0.0032	0.0990
ENSG00000149636	DSN1	62.91	50.57	-1.24	0.0050	0.1124
ENSG00000147162	OGT	67.57	54.5	-1.24	0.0066	0.1257
ENSG00000121089	NACA3P	36.71	29.5	-1.24	0.0079	0.1320
ENSG00000136536	42070	95.93	77.48	-1.24	0.0086	0.1382
ENSG00000011260	UTP18	171.33	138.08	-1.24	0.0091	0.1446
ENSG00000164096	C4orf3	151.33	122.03	-1.24	0.0100	0.1498
ENSG00000170791	CHCHD7	29.73	24.06	-1.24	0.0113	0.1508
ENSG00000118482	PHF3	30.02	24.18	-1.24	0.0115	0.1508
ENSG00000156958	GALK2	49.41	39.94	-1.24	0.0151	0.1670
ENSG00000133119	RFC3	50.63	40.76	-1.24	0.0166	0.1747
ENSG00000096696	DSP	135.89	109.61	-1.24	0.0170	0.1752
ENSG00000164163	ABCE1	91.32	73.54	-1.24	0.0306	0.2195
ENSG00000104341	LAPTM4B	231.22	185.86	-1.24	0.0322	0.2225
ENSG00000204370	SDHD	30.41	24.57	-1.24	0.0344	0.2293

ENSG00000064652	SNX24	35.57	28.7	-1.24	0.0361	0.2353
ENSG00000123575	FAM199X	38.04	30.76	-1.24	0.0400	0.2439
ENSG00000117595	IRF6	163.6	132	-1.24	0.0463	0.2607
ENSG00000139350	NEDD1	48.99	39.37	-1.24	0.0474	0.2610
ENSG00000170881	RNF139	66.37	53.61	-1.24	0.0492	0.2656
ENSG00000205765	C5orf51	31.63	25.34	-1.25	0.0002	0.0444
ENSG00000184575	XPOT	110.22	88.34	-1.25	0.0002	0.0444
ENSG00000158373	HIST1H2BD	68.59	54.85	-1.25	0.0004	0.0580
ENSG00000120802	TMPO	140.25	112.63	-1.25	0.0011	0.0685
ENSG00000130741	EIF2S3	100.04	80.16	-1.25	0.0014	0.0753
ENSG00000171262	FAM98B	38.83	31.13	-1.25	0.0022	0.0898
ENSG00000130707	ASS1	77.47	61.87	-1.25	0.0026	0.0957
ENSG00000124207	CSE1L	143.98	114.86	-1.25	0.0034	0.0990
ENSG00000163104	SMARCAD1	34.04	27.16	-1.25	0.0073	0.1309
ENSG00000087338	GMCL1	35.89	28.77	-1.25	0.0145	0.1643
ENSG00000144224	UBXN4	153.34	123	-1.25	0.0160	0.1734
ENSG00000163811	WDR43	59.4	47.42	-1.25	0.0195	0.1866
ENSG00000096092	TMEM14A	123.17	98.78	-1.25	0.0285	0.2160
ENSG00000075223	SEMA3C	58.2	46.48	-1.25	0.0403	0.2456
ENSG00000253677	UBE2HP1	27.95	22.32	-1.25	0.0477	0.2610
ENSG00000180574	AC068775.1	38.91	30.97	-1.26	0.0001	0.0266
ENSG00000063046	EIF4B	68.02	53.92	-1.26	0.0014	0.0752
ENSG00000155959	VBP1	122.11	96.92	-1.26	0.0017	0.0789
ENSG00000080345	RIF1	25.18	19.92	-1.26	0.0033	0.0990
ENSG00000198826	ARHGAP11A	31.47	25.06	-1.26	0.0061	0.1227
ENSG00000144381	HSPD1	794.93	631.61	-1.26	0.0093	0.1449
ENSG00000113593	PPWD1	38.04	30.17	-1.26	0.0113	0.1508
ENSG00000101596	SMCHD1	30.71	24.45	-1.26	0.0143	0.1628
ENSG00000213613	RP11-380G5.3	43.09	34.07	-1.26	0.0307	0.2195
ENSG00000151414	NEK7	48.77	38.64	-1.26	0.0311	0.2202
ENSG00000196369	SRGAP2P2	32.39	25.65	-1.26	0.0491	0.2656
ENSG00000134759	ELP2	143.38	112.49	-1.27	0.0004	0.0580
ENSG00000100592	DAAM1	48.02	37.7	-1.27	0.0004	0.0580
ENSG00000178691	SUZ12	42.8	33.77	-1.27	0.0006	0.0624
ENSG00000155100	OTUD6B	27.7	21.77	-1.27	0.0020	0.0860
ENSG00000047230	CTPS2	145.54	115.04	-1.27	0.0022	0.0888
ENSG00000117859	OSBPL9	72.08	56.89	-1.27	0.0027	0.0964
ENSG00000145907	G3BP1	118.59	93.17	-1.27	0.0107	0.1505
ENSG00000197312	DDI2	23.8	18.79	-1.27	0.0142	0.1625
ENSG00000125630	POLR1B	36.5	28.73	-1.27	0.0169	0.1752
ENSG00000138442	WDR12	131.91	103.49	-1.27	0.0294	0.2175
ENSG00000077809	GTF2I	167.61	132.3	-1.27	0.0323	0.2225
ENSG00000128951	DUT	121.81	96.22	-1.27	0.0365	0.2357
ENSG00000065911	MTHFD2	267.32	209.39	-1.28	0.0004	0.0580
ENSG00000099875	MKNK2	164.43	128.42	-1.28	0.0004	0.0580
ENSG00000174013	FBXO45	29.25	22.81	-1.28	0.0014	0.0752
ENSG00000136824	SMC2	30.58	23.93	-1.28	0.0021	0.0878

ENSG00000174738	NR1D2	25.17	19.62	-1.28	0.0060	0.1219
ENSG00000115540	PHOCN	109.83	85.78	-1.28	0.0176	0.1787
ENSG00000116001	TIA1	153.56	119.91	-1.28	0.0207	0.1924
ENSG00000141562	NARF	39.34	30.85	-1.28	0.0226	0.2012
ENSG00000196177	ACADSB	72.22	56.36	-1.28	0.0291	0.2169
ENSG00000158169	FANCC	23.85	18.67	-1.28	0.0292	0.2169
ENSG00000116191	RALGPS2	97.98	76.38	-1.28	0.0299	0.2195
ENSG00000156273	BACH1	38.83	30.31	-1.28	0.0387	0.2409
ENSG00000115271	GCA	74.01	57.87	-1.28	0.0442	0.2559
ENSG00000109805	NCAPG	33.28	25.75	-1.29	0.0007	0.0624
ENSG00000182973	CNOT10	144.41	111.74	-1.29	0.0011	0.0685
ENSG00000100311	PDGFB	103.72	80.26	-1.29	0.0018	0.0810
ENSG00000111530	CAND1	194.39	150.16	-1.29	0.0059	0.1212
ENSG00000168758	SEMA4C	131.27	102.15	-1.29	0.0075	0.1320
ENSG00000109184	DCUN1D4	110.62	86.07	-1.29	0.0106	0.1505
ENSG00000233994	GDI2P2	49.99	38.73	-1.29	0.0188	0.1832
ENSG00000241945	PWP2	25.29	19.55	-1.29	0.0283	0.2156
ENSG00000160551	TAOK1	31.57	24.38	-1.29	0.0306	0.2195
ENSG00000165659	DACH1	36.71	28.47	-1.29	0.0393	0.2420
ENSG00000111666	CHPT1	46.13	35.66	-1.29	0.0442	0.2559
ENSG00000166225	FRS2	55.46	43.12	-1.29	0.0451	0.2571
ENSG00000172939	OXR1	73.65	56.85	-1.3	0.0008	0.0643
ENSG00000152332	UHMK1	62.52	47.95	-1.3	0.0060	0.1219
ENSG00000213430	HSPD1P1	45.91	35.45	-1.3	0.0124	0.1550
ENSG00000139921	TMX1	39.77	30.52	-1.3	0.0137	0.1617
ENSG00000147536	GINS4	25.48	19.59	-1.3	0.0186	0.1832
ENSG00000155189	AGPAT5	43	33.2	-1.3	0.0335	0.2267
ENSG00000114790	ARHGEF26	25.63	19.65	-1.3	0.0365	0.2357
ENSG00000151093	OXSM	56.8	43.74	-1.3	0.0410	0.2485
ENSG00000228328	RP11-516A11.1	80.35	61.86	-1.3	0.0438	0.2542
ENSG00000095319	NUP188	35.22	26.97	-1.31	0.0003	0.0580
ENSG00000105976	MET	29.71	22.62	-1.31	0.0076	0.1320
ENSG00000134371	CDC73	71.27	54.28	-1.31	0.0104	0.1505
ENSG00000112715	VEGFA	142.5	108.52	-1.31	0.0307	0.2197
ENSG00000151498	ACAD8	21.9	16.78	-1.31	0.0386	0.2408
ENSG00000107669	ATE1	28.74	21.75	-1.32	0.0013	0.0748
ENSG00000137770	CTDSPL2	25.36	19.24	-1.32	0.0034	0.0990
ENSG00000118513	MYB	27.38	20.78	-1.32	0.0061	0.1227
ENSG00000079246	XRCC5	283.63	215.26	-1.32	0.0102	0.1505
ENSG00000134602	AL109749.1	37.62	28.55	-1.32	0.0205	0.1915
ENSG00000101752	MIB1	28.8	21.83	-1.32	0.0345	0.2295
ENSG00000255302	EID1	118.3	89.23	-1.33	0.0156	0.1719
ENSG00000072571	HMMR	45.58	34.18	-1.33	0.0231	0.2029
ENSG00000235129	FABP7P2	263.75	197.76	-1.33	0.0330	0.2247
ENSG00000114742	WDR48	81.65	60.71	-1.34	0.0015	0.0760
ENSG00000117394	SLC2A1	477.17	356.7	-1.34	0.0098	0.1485
ENSG00000166266	CUL5	23.95	17.81	-1.34	0.0118	0.1516

ENSG00000241061	AC090602.1	33.13	24.69	-1.34	0.0217	0.1960
ENSG00000179941	BBS10	22.91	17.06	-1.34	0.0263	0.2129
ENSG00000224834	BTF3P9	49.57	37.1	-1.34	0.0271	0.2130
ENSG00000182552	RWDD4	25.46	19.01	-1.34	0.0470	0.2610
ENSG00000096717	SIRT1	30.53	22.55	-1.35	0.0004	0.0580
ENSG00000135549	PKIB	90.93	67.11	-1.35	0.0023	0.0900
ENSG00000108021	C10orf18	61.81	45.68	-1.35	0.0026	0.0957
ENSG00000181751	C5orf30	38.31	28.41	-1.35	0.0029	0.0982
ENSG00000235847	LDHAP7	29.58	21.88	-1.35	0.0216	0.1960
ENSG00000120868	APAF1	36.38	26.77	-1.36	0.0069	0.1274
ENSG00000128928	IVD	161.33	118.28	-1.36	0.0104	0.1505
ENSG00000114439	BBX	72.15	52.86	-1.36	0.0315	0.2207
ENSG00000163605	PPP4R2	42.97	31.46	-1.37	0.0029	0.0982
ENSG00000139354	GAS2L3	19.39	14.13	-1.37	0.0109	0.1508
ENSG00000100968	NFATC4	45.51	33.2	-1.37	0.0145	0.1642
ENSG00000181192	DHTKD1	111.91	81.5	-1.37	0.0266	0.2130
ENSG00000116984	MTR	20.6	14.95	-1.38	0.0011	0.0685
ENSG00000164118	CEP44	20.75	15.03	-1.38	0.0049	0.1124
ENSG00000122884	P4HA1	204.87	148.36	-1.38	0.0113	0.1508
ENSG00000183044	ABAT	54.82	39.81	-1.38	0.0113	0.1508
ENSG00000172795	DCP2	37.51	27.16	-1.38	0.0131	0.1587
ENSG00000198060	42068	55.7	39.99	-1.39	0.0045	0.1094
ENSG00000257315	ZBED6	40.94	29.38	-1.39	0.0076	0.1320
ENSG00000134333	LDHA	857.98	617.39	-1.39	0.0085	0.1374
ENSG00000125089	SH3TC1	37.7	26.9	-1.4	0.0048	0.1124
ENSG00000152256	PDK1	27.62	19.7	-1.4	0.0094	0.1449
ENSG00000113328	CCNG1	236.48	169.38	-1.4	0.0107	0.1505
ENSG00000184661	CDCA2	41.28	29.42	-1.4	0.0107	0.1505
ENSG00000136295	TTYH3	38.5	27.33	-1.41	0.0066	0.1257
ENSG00000243988	RP11-325K4.1	43.78	31.1	-1.41	0.0129	0.1587
ENSG00000102290	PCDH11X	24.19	17.1	-1.41	0.0139	0.1617
ENSG00000244165	P2RY11	19.33	13.69	-1.41	0.0281	0.2153
ENSG00000247095	MIR210HG	33.7	23.7	-1.42	0.0033	0.0990
ENSG00000181788	SIAH2	209.23	147.71	-1.42	0.0140	0.1617
ENSG00000180694	TMEM64	31.24	22.02	-1.42	0.0157	0.1724
ENSG00000127663	KDM4B	17.5	12.22	-1.43	0.0055	0.1181
ENSG00000105220	GPI	277.77	193.88	-1.43	0.0084	0.1371
ENSG00000170802	FOXN2	26.94	18.71	-1.44	0.0050	0.1124
ENSG00000180233	ZNRF2	47.09	32.76	-1.44	0.0213	0.1957
ENSG00000068650	ATP11A	16.22	11.15	-1.45	0.0202	0.1908
ENSG00000134324	LPIN1	19.8	13.59	-1.46	0.0027	0.0964
ENSG00000206878	SNORA51	46.66	31.96	-1.46	0.0033	0.0990
ENSG00000086300	SNX10	17.01	11.66	-1.46	0.0042	0.1052
ENSG00000171428	NAT1	96.44	65.99	-1.46	0.0079	0.1321
ENSG00000130827	PLXNA3	184.2	126.1	-1.46	0.0329	0.2244
ENSG00000186918	ZNF395	61.35	41.69	-1.47	0.0001	0.0394
ENSG00000091831	ESR1	51.91	35.32	-1.47	0.0130	0.1587

ENSG00000084628	NKAIN1	30.46	20.78	-1.47	0.0326	0.2238
ENSG00000235674	LDHAP2	29.89	20.38	-1.47	0.0398	0.2434
ENSG00000168209	DDIT4	277.29	188.17	-1.47	0.0468	0.2610
ENSG00000119950	MXI1	62.36	42.16	-1.48	0.0093	0.1449
ENSG00000147394	ZNF185	32.52	21.96	-1.48	0.0174	0.1768
ENSG00000026508	CD44	61.56	41.65	-1.48	0.0194	0.1861
ENSG00000162433	AK4	21.52	14.49	-1.49	0.0010	0.0685
ENSG00000067057	PFKP	182.59	122.15	-1.49	0.0032	0.0990
ENSG00000231397	AC004941.5	25.79	17.36	-1.49	0.0472	0.2610
ENSG00000151718	WWC2	76.79	51.29	-1.5	0.0002	0.0444
ENSG00000111885	MAN1A1	61.09	40.68	-1.5	0.0034	0.0990
ENSG00000239887	C1orf226	21.68	14.48	-1.5	0.0104	0.1505
ENSG00000122741	DCAF10	112.31	74.47	-1.51	0.0002	0.0473
ENSG00000185900	AC113191.1	16.8	11.09	-1.51	0.0174	0.1768
ENSG00000108352	RAPGEFL1	36.89	24.37	-1.51	0.0341	0.2288
ENSG00000177181	RIMKLA	23.1	15.24	-1.52	0.0026	0.0957
ENSG00000196233	LCOR	19.04	12.52	-1.52	0.0250	0.2083
ENSG00000196208	GREB1	197.26	129.71	-1.52	0.0272	0.2130
ENSG00000182185	RAD51B	20.07	13.14	-1.53	0.0033	0.0990
ENSG00000143228	NUF2	62.76	41.11	-1.53	0.0036	0.1003
ENSG00000118707	TGIF2	23.45	15.34	-1.53	0.0085	0.1374
ENSG00000102144	PGK1	3209.49	2088.45	-1.54	0.0051	0.1124
ENSG00000113389	NPR3	16.02	10.39	-1.54	0.0138	0.1617
ENSG00000115548	KDM3A	96.95	62.12	-1.56	0.0048	0.1124
ENSG00000120913	PDLIM2	19.09	12.17	-1.57	0.0045	0.1094
ENSG00000114268	PFKFB4	32.24	20.4	-1.58	0.0032	0.0990
ENSG00000254815	RP11-496I9.1	20.69	13.11	-1.58	0.0225	0.2001
ENSG00000229729	RP11-159G9.5	19.31	12.13	-1.59	0.0045	0.1094
ENSG00000006747	SCIN	18.65	11.74	-1.59	0.0199	0.1890
ENSG00000104765	BNIP3L	156.56	97.89	-1.6	0.0014	0.0752
ENSG00000213290	CTD-2192J16.12	49.36	30.63	-1.61	0.0124	0.1550
ENSG00000196968	FUT11	54.07	33.28	-1.62	0.0027	0.0964
ENSG00000104419	NDRG1	1292.75	796.87	-1.62	0.0268	0.2130
ENSG00000197358	BNIP3P1	22.71	13.75	-1.65	0.0160	0.1734
ENSG00000061656	SPAG4	37.69	22.74	-1.66	0.0099	0.1485
ENSG00000159399	HK2	77.27	46.34	-1.67	0.0036	0.1003
ENSG00000169906	S100G	63.51	37.83	-1.68	0.0013	0.0739
ENSG00000162891	IL20	144.52	85.96	-1.68	0.0239	0.2058
ENSG00000003989	SLC7A2	18.01	10.66	-1.69	0.0009	0.0653
ENSG00000170525	PFKFB3	100.92	58.95	-1.71	0.0007	0.0624
ENSG00000186868	MAPT	46.76	27.2	-1.72	0.0118	0.1516
ENSG00000186352	ANKRD37	87.3	50.32	-1.73	0.0241	0.2058
ENSG00000141526	SLC16A3	41.04	23.54	-1.74	0.0015	0.0760
ENSG00000105974	CAV1	18.04	10.38	-1.74	0.0384	0.2408
ENSG00000124785	NRN1	29.13	16.5	-1.77	0.0010	0.0685
ENSG00000228206	AC016717.1	107.33	60.04	-1.79	0.0382	0.2406
ENSG00000176171	BNIP3	65.47	35.07	-1.87	0.0000	0.0198

ENSG00000124126	PREX1	42.58	22.57	-1.89	0.0368	0.2361
ENSG00000182952	HMGH4	85.48	44.89	-1.9	0.0014	0.0752
ENSG00000142973	CYP4B1	75.56	39.6	-1.91	0.0011	0.0685
ENSG00000239063	snoU13	40.24	21.07	-1.91	0.0391	0.2420
ENSG00000255824	AL590369.1	11.55	5.82	-1.98	0.0436	0.2541
ENSG00000240941	AC021311.1	26.03	12.16	-2.14	0.0254	0.2098
ENSG00000212312	5S_rRNA	577.67	266.67	-2.17	0.0099	0.1487
ENSG00000228041	RP4-581F12.1	51.53	23.7	-2.17	0.0107	0.1505
ENSG00000252786	U6	37.21	17.06	-2.18	0.0112	0.1508
ENSG00000238975	snoU13	117.25	51.07	-2.3	0.0140	0.1617
ENSG00000212330	U6	59.88	25.79	-2.32	0.0451	0.2571
ENSG00000241069	CTD-3141N22.1	33.31	13.38	-2.49	0.0483	0.2629
ENSG00000170323	FABP4	16.58	6.56	-2.53	0.0304	0.2195
ENSG00000188389	PDCD1	13.31	5.05	-2.64	0.0184	0.1832
ENSG00000164879	CA3	21.34	6.43	-3.32	0.0383	0.2408
ENSG00000253294	IGHVII-40-1	161.17	46.32	-3.48	0.0321	0.2222
ENSG00000256349	CTD-3074O7.11	8	1.94	-4.12	0.0304	0.2195

a Transcription Factor Network List

#	Network	p-Value	zScore	Total nodes	Seed nodes
1	CREB1	0.000E+00	219.95	212	211
2	c-Myc	0.000E+00	188.31	156	155
3	ESR1 (nuclear)	7.680E-261	157.67	108	108
4	SP1	2.370E-256	156.21	108	107
5	Androgen receptor	3.270E-239	150.96	101	100
6	HIF1A	7.000E-232	148.65	98	97

b Enriched pathway-based sets

p-value	q-value	pathway
6.23E-07	5.11E-05	HIF-1-alpha transcription factor network
0.000213722	0.008762622	Direct p53 effectors
0.001656723	0.034772856	HIF-2-alpha transcription factor network
0.001696237	0.034772856	Validated targets of C-MYC transcriptional activation
0.004065926	0.066681194	Coregulation of Androgen receptor activity
0.008671731	0.108036049	Regulation of Androgen receptor activity