

Supplementary File 2. Functional Annotation of AR co-expressed genes. Gene Ontology groups with p< 0.01 are listed.

Gene Ontology Term	Count	%	PValue	Genes	List Total	Pop Hits	Pop Total	Fold Enrichment
cell cycle	18	6.185567	6.42E-04	ANAPC1, E2F3, DLGAP5, NDC80, CDC20, CETN1, CDC5L, CCNG2, SMC4, RNF103, SGSM3, HJURP, MAPK4, MAPK3, CKS2, BUB1, FBXO5, USP16	290	461	19235	2.589797292
glucose metabolism	4	1.37457	0.001081	AKT1, PDK2, PGM1, DCXR	290	14	19235	18.95073892
oxygen homeostasis	3	1.030928	0.003184	HIF1A, NARFL, SOD2	258	5	14116	32.82790698
regulation of mitosis	6	2.061856	0.003391	CAV2, DLGAP5, BUB1, IGF1, TTK, ZZEF1	240	56	13174	5.88125
positive regulation of protein metabolic process	12	4.123711	0.004857	ANAPC1, AKT1, GH1, CD80, LYN, SGSM3, TGF83, IGF1, TTK, FBXO5, CDC20, CDC27	240	243	13174	2.710699588
macromolecular complex assembly	23	7.90378	0.005062	XPO1, IKBKAP, CAV2, E2F3, TCP1, HIST1H1D, DARS, SNRPD1, MBNL1, WAS, BIRC2, SOD2, SF3A3, MTMR2, APOA1, PICALM, HJURP, NCK1, IPO5, FBXO5, USP16, PRNP, MYST4	258	665	14116	1.89233549
regulation of T-helper 1 type immune response	3	1.030928	0.006528	IL27RA, CD80, IL27	258	7	14116	23.44850498
nucleoside monophosphate metabolic process	6	2.061856	0.006969	ADCY2, NUDT4, ADCY10, PRPS2, GART, GUCY2D	258	66	14116	4.9739253
regulation of mitotic metaphase/anaphase transition	4	1.37457	0.007111	DLGAP5, BUB1, TTK, ZZEF1	258	22	14116	9.947850599
regulation of catabolic process	7	2.405498	0.00799	AKT1, CLN3, XPO1, HIF1A, SGSM3, IGF1, PNPLA2	240	96	13174	4.002517361
response to stress	45	15.46392	0.008504	TP53TG1, NMI, IL27RA, CRP, EGLN3, PGLYRP1, TGFB3, CETN1, CXCL6, SLC11A2, AKT1, CUL5, GATA3, AVIL, NFATC4, SEPP1, TOP2A, PMS1, POLL, KCNMA1, COL18A1, CLN3, LYN, CEBPE, USP1, IL27, PSG3, IGF1, TOPBP1, F7, ATR, NCR2, NCR1, BIRC2, WAS, SOD2, CD84, PLSCR1, CCL13, HIF1A, CD19, KLRG1, NARFL, PRNP, PRKRIR	258	1685	14116	1.461182803
organelle fission	11	3.780069	0.009307	ANAPC1, DLGAP5, BUB1, FBXO5, CETN1, CDC20, NDC80, USP16, CCNG2, CDC27, SMC4	258	229	14116	2.628143936
regulation of cellular component organization	17	5.841924	0.009831	MAG, CAV2, XPO1, DLGAP5, TGFB3, IGF1, TTK, LDLRAP1, ZZEF1, AKT1, APOA1, PVRL1, NCK1, SEMA3F, AVIL, BUB1, CDC42EP3	258	458	14116	2.030838496