S7 Table. Pathway enrichment results

Category	Gene set	N_genes	N_overlap	p-value	adjP	Genes
Positional_gene_sets	chr11q13	365	14	2.43E-16	7.28E-14	ENPP7P8:FAM86C1: CTD-2313N18.5: ALG1L9P:ZNF705E: DEFB108B:RNA5SP342: RNF121:IL18BP:NUMA1: LAMTOR1:ANAPC15: FOLR3:FOLR2:INPPL1
Positional_gene_sets	chr5q31	260	12	4.62E-15	5.28E-13	NDUFA2:IK:WDR55: PCDHB15:SLC25A2: TAF7:PCDHGA1:PCDHGA2: PCDHGA3:PCDHGB1: DIAPH1:ARAP3
Positional_gene_sets	chr8q24	263	12	5.30E-15	5.28E-13	TSNARE1:BAI1:ARC:JRK: PSCA:LY6K:CTD-2292P10.4: THEM6:LYPD2:LYNX1:LY6E: C8orf31
Chemical_and_Genetic_ pertubation	NIKOLSKY_BREAST_CANCER_8 Q23_Q24_AMPLICON	157	11	6.94E-16	2.29E-12	TSNARE1:BAI1:ARC:JRK: PSCA:LY6K:THEM6: LYPD2:LYNX1:LY6E:C8orf31
Curated_gene_sets	NIKOLSKY_BREAST_CANCER_8 Q23_Q24_AMPLICON	157	11	6.94E-16	3.82E-12	TSNARE1:BAI1:ARC:JRK: PSCA:LY6K:THEM6: LYPD2:LYNX1:LY6E:C8orf31
Positional_gene_sets	chr16q24	109	9	7.99E-14	5.97E-12	FBXO31:MAP1LC3B:ZCCHC14: JPH3:KLHDC4:SLC7A5:BANP: ZNF469:CTU2
Chemical_and_Genetic_ pertubation	NIKOLSKY_BREAST_CANCER_1 6Q24_AMPLICON	52	7	1.57E-12	2.59E-09	MAP1LC3B:ZCCHC14:JPH3:KL HDC4:SLC7A5:BANP:CTU2
Curated_gene_sets	NIKOLSKY_BREAST_CANCER_1 6Q24_AMPLICON	52	7	1.57E-12	4.31E-09	MAP1LC3B:ZCCHC14:JPH3:KL HDC4:SLC7A5:BANP:CTU2
GO_cc	GO_ANCHORED_COMPONENT_ OF_MEMBRANE	168	7	6.77E-09	6.77E-06	FOLR3:FOLR2:PSCA:LY6K: LYPD2:LYNX1:LY6E
Chemical_and_Genetic_ pertubation	GRATIAS_RETINOBLASTOMA_1 6Q24	18	4	1.43E-08	1.57E-05	FBXO31:MAP1LC3B:ZCCHC14: SLC7A5

Curated_gene_sets	GRATIAS_RETINOBLASTOMA_16Q24	18	4	1.43E-08	2.62E-05	FBXO31:MAP1LC3B:ZCCHC14:SLC7A5
microRNA_targets	GGGACCA_MIR133A_MIR133B	200	6	6.03E-07	1.33E-04	NUMA1:PCDHGA1:PCDHGA2:PCDHGA3:PCDHGB1:BAI1
microRNA_targets	TCCAGAG_MIR518C	146	5	2.92E-06	3.23E-04	IL18BP:PCDHGA1:PCDHGA2:PCDHGA3:PCDHGB1
Curated_gene_sets	REACTOME_POST_TRANSLATIONAL_MODIFICATION:_SYNTHESIS_OF_GPI_ANCHORED_PROTEINS	92	5	2.96E-07	4.08E-04	FOLR2:PSCA:LY6K:LYPD2:LY6E
Reactome	REACTOME_POST_TRANSLATIONAL_MODIFICATION:_SYNTHESIS_OF_GPI_ANCHORED_PROTEINS	92	5	2.96E-07	4.44E-04	FOLR2:PSCA:LY6K:LYPD2:LY6E
Canonical_Pathways	REACTOME_POST_TRANSLATIONAL_MODIFICATION:_SYNTHESIS_OF_GPI_ANCHORED_PROTEINS	92	5	2.96E-07	6.52E-04	FOLR2:PSCA:LY6K:LYPD2:LY6E
Chemical_and_Genetic_pertubation	LOCKWOOD_AMPLIFIED_IN_LUNG_CANCER	213	5	1.83E-05	1.51E-02	NUMA1:LAMTOR1:ANAPC15:INPPL1:LY6E
Curated_gene_sets	LOCKWOOD_AMPLIFIED_IN_LUNG_CANCER	213	5	1.83E-05	2.01E-02	NUMA1:LAMTOR1:ANAPC15:INPPL1:LY6E
microRNA_targets	ATATGCA_MIR448	210	4	2.96E-04	2.18E-02	PCDHGA1:PCDHGA2:PCDHGA3:PCDHGB1
GO_mf	GO_ACETYLCHOLINE_RECEPTOR_INHIBITOR_ACTIVITY	5	2	2.26E-05	2.58E-02	LYNX1:LY6E
GO_mf	GO_RECEPTOR_INHIBITOR_ACTIVITY	40	3	3.14E-05	2.58E-02	IL18BP:LYNX1:LY6E
Chemical_and_Genetic_pertubation	SCHAEFFER_PROSTATE_DEVELOPMENT_48HR_UP	430	6	4.76E-05	2.82E-02	BAI1:ARC:PSCA:LYPD2:LYNX1:LY6E
Chemical_and_Genetic_pertubation	TSUNODA_CISPLATIN_RESISTANCE_DN	47	3	5.12E-05	2.82E-02	FOLR3:FOLR2:SLC7A5
GO_bp	GO_HOMOPHILIC_CELL_ADHESION_VIA_PLASMA_MEMBRANE_ADHESION_MOLECULES	165	5	5.31E-06	3.91E-02	PCDHB15:PCDHGA1:PCDHGA2:PCDHGA3:PCDHGB1

Curated_gene_sets	SCHAEFFER_PROSTATE_DEVELOPMENT_48HR_UP	430	6	4.76E-05	4.02E-02	BAI1:ARC:PSCA:LYPD2:LYNX1:LY6E
Curated_gene_sets	TSUNODA_CISPLATIN_RESISTANCE_DN	47	3	5.12E-05	4.02E-02	FOLR3:FOLR2:SLC7A5
GO_mf	GO_ACETYLCHOLINE_RECEPTOR_BINDING	11	2	1.23E-04	4.87E-02	PSCA:LYNX1
GO_mf	GO_NEUROTRANSMITTER_RECEPTOR_REGULATOR_ACTIVITY	11	2	1.23E-04	4.87E-02	LYNX1:LY6E
GO_mf	GO_FOLIC_ACID_BINDING	12	2	1.48E-04	4.87E-02	FOLR3:FOLR2