

Supplementary Table 18: Pathway analysis of the genes overexpressed when amplified using g:Profiler.

Number of Query Genes	Number of Term Genes	Number of Common Genes	Term ID	Source	Description	Genes in Overlap	p-value
6005	140	68	GO:0044249	BP	Cellular biosynthetic process	ST3GAL1, SNAI2, RB1CC1, NSMAF, TAF2, ARFGEF1, TRAM1, PABPC1, CPSF1, MYST3, CPNE3, NBN, STK3, EIF3E, TSTA3, PYCRL, MCM4, ENY2, COPS5, RDH10, THAP1, HRSP12, IMPA1, E2F5, MRPL15, NCOA2, GOLGA7, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, COMMD5, ZNF16, CHD7, MRPL13, OPLAH, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TOP1MT, DGAT1, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, GPAA1, ZNF251, ASPH	3.40E-02
6457	140	73	GO:0034641	BP	Cellular nitrogen compound metabolic process	ST3GAL1, ZC3H3, SNAI2, RB1CC1, NSMAF, TAF2, TRAM1, PABPC1, CPSF1, MYST3, NBN, UBE2W, POP1, STK3, EIF3E, UBR5, TSTA3, PYCRL, MCM4, ENY2, COPS5, THAP1, HRSP12, E2F5, MRPL15, NCOA2, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, UTP23, NDUFB9, TATDN1, ZNF7, TCEB1, AZIN1, RPL30, NSMCE2, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, UBE2V2, COMMD5, ZNF16, CHD7, MRPL13, OPLAH, EXOSC4, RRS1, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TRMT12, TOP1MT, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, ZNF251, ASPH, BOP1	1.16E-02
10602	140	106	GO:0043231	CC	Intracellular membrane-bounded organelle	ST3GAL1, ZC3H3, SNAI2, RB1CC1, ATP6V1H, TAF2, ARFGEF1, MTFR1, TRAM1, PABPC1, CPSF1, MYST3, CPNE3, NBN, DECR1, UBE2W, POP1, JPH1, STK3, RAB2A, EIF3E, ARMC1, SNX16, UBR5, SQLE, MCM4, NUDCD1, ENY2, LYPLA1, COPS5, RDH10, THAP1, HRSP12, E2F5, DERL1, MRPL15, NCOA2, GOLGA7, MRPS28, LACTB2, TERF1, RPL7, MTDH, EBAG9, POLR2K, UTP23, NDUFB9, TATDN1, ZNF7, ARHGAP39, SLC39A4, TCEB1, AZIN1, ATP6V1C1, PTDSS1, RPL30, WDYHV1, NSMCE2, AGPAT6, VPS28, RPL8, PEX2, RAD21, MED30, GOLGA7, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, HOOK3, UBE2V2, PTK2, COMMD5, ZNF16, CHCHD7, CHD7, MRPL13, VCIPI1, GRINA, EXOSC4, RRS1, CYC1, SHARPIN, MAF1, TIGD5, PUF60, TMEM64, SCRI8, MAPK15, ZNF707, ZNF623, TOP1MT, PTP4A3, DGAT1, HSF1, MYBL1, ZNF696, TCEA1, CYHR1, ZNF250, ZNF34, ZNF517, GPAA1, ZNF251, ASPH, BOP1	9.66E-04
6110	140	69	GO:1901576	BP	Organic substance biosynthetic process	ST3GAL1, SNAI2, RB1CC1, NSMAF, TAF2, ARFGEF1, TRAM1, PABPC1, CPSF1, MYST3, CPNE3, NBN, STK3, EIF3E, TSTA3, PYCRL, SQLE, MCM4, ENY2, COPS5, RDH10, THAP1, HRSP12, IMPA1, E2F5, MRPL15, NCOA2, GOLGA7, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, COMMD5, ZNF16, CHD7, MRPL13, OPLAH, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TOP1MT, DGAT1, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, GPAA1, ZNF251, ASPH	3.02E-02
6191	140	69	GO:0009058	BP	Biosynthetic process	ST3GAL1, SNAI2, RB1CC1, NSMAF, TAF2, ARFGEF1, TRAM1, PABPC1, CPSF1, MYST3, CPNE3, NBN, STK3, EIF3E, TSTA3, PYCRL, SQLE, MCM4, ENY2, COPS5, RDH10, THAP1, HRSP12, IMPA1, E2F5, MRPL15, NCOA2, GOLGA7, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, COMMD5, ZNF16, CHD7, MRPL13, OPLAH, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TOP1MT, DGAT1, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, GPAA1, ZNF251, ASPH	4.92E-02
10144	140	99	GO:0044237	BP	Cellular metabolic process	ST3GAL1, ZC3H3, SNAI2, RB1CC1, RNF19A, NSMAF, TAF2, ARFGEF1, MTFR1, TRAM1, PABPC1, CPSF1, MYST3, CPNE3, NBN, DECR1, UBE2W, POP1, STK3, EIF3E, UBR5, TSTA3, PYCRL, SQLE, MCM4, ENY2, LYPLA1, COPS5, RDH10, THAP1, HRSP12, IMPA1, E2F5, DERL1, MRPL15, NCOA2, GOLGA7, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, UTP23, NDUFB9, TATDN1, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, WDYHV1, NSMCE2, AGPAT6, VPS28, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, FNTA, UBE2V2, PTK2, COMMD5, ZNF16, CHD7, MRPL13, ADCK5, VCIPI1, OPLAH, EXOSC4, RRS1, CYC1, SHARPIN, MAF1, PUF60, SCRI8, MAPK15, ZNF707, FBXL6, ZNF623, TRMT12, TOP1MT, PTP4A3, DGAT1, HSF1, NRB2P2, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, GPAA1, ZNF251, ASPH, BOP1	2.88E-02
6763	140	75	GO:0006807	BP	Nitrogen compound metabolic process	ST3GAL1, ZC3H3, SNAI2, RB1CC1, NSMAF, TAF2, TRAM1, PABPC1, CPSF1, MYST3, NBN, UBE2W, POP1, STK3, EIF3E, UBR5, TSTA3, PYCRL, MCM4, ENY2, LYPLA1, COPS5, THAP1, HRSP12, E2F5, MRPL15, NCOA2, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, UTP23, NDUFB9, TATDN1, ZNF7, TCEB1, AZIN1, PTDSS1, RPL30, NSMCE2, AGPAT6, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, UBE2V2, COMMD5, ZNF16, CHD7, MRPL13, OPLAH, EXOSC4, RRS1, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TRMT12, TOP1MT, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, ZNF251, ASPH, BOP1	1.60E-02
3966	140	52	GO:0003676	MF	Nucleic acid binding	ZC3H3, SNAI2, TAF2, PABPC1, CPSF1, MYST3, CPNE3, NBN, POP1, EIF3E, UBR5, MCM4, COPS5, THAP1, HRSP12, E2F5, MRPL15, NCOA2, MRPS28, TERF1, RPL7, MTDH, POLR2K, EIF3H, UTP23, ZNF7, RPL30, RPL8, YWHAZ, ZNF16, CHD7, MRPL13, PLEC, EXOSC4, RRS1, MAF1, TIGD5, PUF60, ZNF707, ZFP41, ZNF623, RBM12B, TOP1MT, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, ZNF251, BOP1	1.23E-02
5013	140	60	GO:0090304	BP	Nucleic acid metabolic process	ZC3H3, SNAI2, RB1CC1, TAF2, PABPC1, CPSF1, MYST3, NBN, UBE2W, POP1, STK3, EIF3E, UBR5, MCM4, ENY2, COPS5, THAP1, HRSP12, E2F5, NCOA2, TERF1, RPL7, MTDH, POLR2K, UTP23, TATDN1, ZNF7, TCEB1, RPL30, NSMCE2, RPL8, PEX2, RAD21, MED30, COX6C, YWHAZ, TRAPPC9, UBE2V2, COMMD5, ZNF16, CHD7, EXOSC4, RRS1, MAF1, PUF60, MAPK15, ZNF707, ZNF623, TRMT12, TOP1MT, HSF1, MYBL1, ZNF696, TCEA1, ZNF250, ZNF34, ZNF517, ZNF251, ASPH, BOP1	2.98E-02