

DAY1\_YF17D\_VACCINE\_PBMC\_UP, GSE13485\_CTRL\_VS\_DAY1\_YF17D\_VACCINE\_PBMC\_UP

GSE17974\_CTRL\_VS\_ACT\_IL4\_AND\_ANTIL\_IL12\_2H\_CD4\_TCELL\_DN, GSE17974\_CTRL\_VS\_ACT\_IL4\_AND\_ANTIL\_IL12\_2H\_CD4\_TCELL\_DN  
GSE44649\_NAIVE\_VS\_ACTIVATED\_CD8\_TCELL\_MIR155\_KO\_DN, GSE44649\_NAIVE\_VS\_ACTIVATED\_CD8\_TCELL\_MIR155\_KO\_DN  
GSE13485\_CTRL\_VS\_DAY21\_YF17D\_VACCINE\_PBMC\_UP, GSE13485\_CTRL\_VS\_DAY21\_YF17D\_VACCINE\_PBMC\_UP  
GSE10239\_NAIVE\_VS\_MEMORY\_CD8\_TCELL\_UP, GSE10239\_NAIVE\_VS\_MEMORY\_CD8\_TCELL\_UP  
GSE17974\_0H\_VS\_1H\_IN\_VITRO\_ACT\_CD4\_TCELL\_DN, GSE17974\_0H\_VS\_1H\_IN\_VITRO\_ACT\_CD4\_TCELL\_DN  
GSE13485\_DAY1\_VS\_DAY3\_YF17D\_VACCINE\_PBMC\_DN, GSE13485\_DAY1\_VS\_DAY3\_YF17D\_VACCINE\_PBMC\_DN  
GSE19772\_HCMV\_INFL\_VS\_HCMV\_INF\_MONOCYTES\_AND\_P13K\_INHIBITION\_DN, GSE19772\_HCMV\_INFL\_VS\_HCMV\_INF\_MONOCYTES\_AND\_P13K\_INHIBITION\_DN  
GSE13484\_UNSTIM\_VS\_12H\_YF17D\_VACCINE\_STIM\_PBMC\_DN, GSE13484\_UNSTIM\_VS\_12H\_YF17D\_VACCINE\_STIM\_PBMC\_DN  
GSE13485\_DAY1\_VS\_DAY7\_YF17D\_VACCINE\_PBMC\_DN, GSE13485\_DAY1\_VS\_DAY7\_YF17D\_VACCINE\_PBMC\_DN  
GSE14308\_TH1\_VS\_NATURAL\_TREG\_DN, GSE14308\_TH1\_VS\_NATURAL\_TREG\_DN  
GSE17721\_LPS\_VS\_POLYIC\_6H\_BMDC\_UP, GSE17721\_LPS\_VS\_POLYIC\_6H\_BMDC\_UP  
GSE27291\_0H\_VS\_7D\_STIM\_GAMMADelta\_TCELL\_UP, GSE27291\_0H\_VS\_7D\_STIM\_GAMMADelta\_TCELL\_UP  
GSE18791\_CTRL\_VS\_NEWCASTLE\_VIRUS\_DC\_2H\_UP, GSE18791\_CTRL\_VS\_NEWCASTLE\_VIRUS\_DC\_2H\_UP  
MORF\_PPP2R5E, MORF\_PPP2R5E  
GSE25123\_CTRL\_VS\_ROSIGLITAZONE\_STIM\_PPARG\_KO\_MACROPHAGE\_DN, GSE25123\_CTRL\_VS\_ROSIGLITAZONE\_STIM\_PPARG\_KO\_MACROPHAGE\_DN  
GSE2124\_CTRL\_VS\_LYMPHOTOXIN\_BETA\_TREATED\_MLN\_DN, GSE2124\_CTRL\_VS\_LYMPHOTOXIN\_BETA\_TREATED\_MLN\_DN  
GSE45365\_CD8A\_DC\_VS\_CD11B\_DC\_IFNAR\_KO\_DN, GSE45365\_CD8A\_DC\_VS\_CD11B\_DC\_IFNAR\_KO\_DN  
MIR520A\_5P, MIR520A\_5P  
GSE18804\_BRAIN\_VS\_COLON\_TUMORAL\_MACROPHAGE\_DN, GSE18804\_BRAIN\_VS\_COLON\_TUMORAL\_MACROPHAGE\_DN  
MIR525\_5P, MIR525\_5P  
MIR16\_1\_3P, MIR16\_1\_3P  
GSE17721\_CTRL\_VS\_POLYIC\_12H\_BMDC\_DN, GSE17721\_CTRL\_VS\_POLYIC\_12H\_BMDC\_DN  
GSE17974\_IL4\_AND\_ANTIL\_IL12\_VS\_UNTREATED\_12H\_ACT\_CD4\_TCELL\_UP, GSE17974\_IL4\_AND\_ANTIL\_IL12\_VS\_UNTREATED\_12H\_ACT\_CD4\_TCELL\_UP  
MIR196A\_3P, MIR196A\_3P  
GSE2197\_CPG\_DNA\_VS\_UNTREATED\_IN\_DC\_UP, GSE2197\_CPG\_DNA\_VS\_UNTREATED\_IN\_DC\_UP  
MIR802, MIR802  
MIR542\_3P, MIR542\_3P  
MIR1285\_3P, MIR1285\_3P  
MIR1910\_3P, MIR1910\_3P  
GSE15659\_RESTING\_TREG\_VS\_NONSUPPRESSIVE\_TCELL\_DN, GSE15659\_RESTING\_TREG\_VS\_NONSUPPRESSIVE\_TCELL\_DN  
MIR379\_3P\_MIR411\_3P, MIR379\_3P\_MIR411\_3P  
MORF\_RAB11A, MORF\_RAB11A  
GOMF\_PROTEIN\_METHYLTRANSFERASE\_ACTIVITY, GOMF\_PROTEIN\_METHYLTRANSFERASE\_ACTIVITY  
MIR133A\_5P, MIR133A\_5P  
ELVIDGE\_HIF1A\_TARGETS\_UP, ELVIDGE\_HIF1A\_TARGETS\_UP  
MIR6511A\_5P, MIR6511A\_5P  
MIR3187\_5P, MIR3187\_5P  
GSE18281\_SUBCAPSULAR\_VS\_PERIMEDULLARY\_CORTICAL\_REGION\_OF\_THYMUS\_DN, GSE18281\_SUBCAPSULAR\_VS\_PERIMEDULLARY\_CORTICAL\_REGION\_OF\_THYMUS\_DN  
MIR5189\_5P, MIR5189\_5P  
MIR6131, MIR6131  
GSE7460\_CTRL\_VS\_TGFB\_TREATED\_ACT\_CD8\_TCELL\_DN, GSE7460\_CTRL\_VS\_TGFB\_TREATED\_ACT\_CD8\_TCELL\_DN  
GSE17974\_0H\_VS\_0.5H\_IN\_VITRO\_ACT\_CD4\_TCELL\_DN, GSE17974\_0H\_VS\_0.5H\_IN\_VITRO\_ACT\_CD4\_TCELL\_DN  
MIR3912\_5P, MIR3912\_5P  
MIR4793\_3P, MIR4793\_3P  
MIR4696, MIR4696  
MIR216A\_5P, MIR216A\_5P  
MIR622, MIR622  
GSE27786\_CD4\_TCELL\_VS\_ERYTHROBLAST\_DN, GSE27786\_CD4\_TCELL\_VS\_ERYTHROBLAST\_DN  
GSE21927\_UNTREATED\_VS\_GMCSF\_IL6\_TREATED\_BONE\_MARROW\_DN, GSE21927\_UNTREATED\_VS\_GMCSF\_IL6\_TREATED\_BONE\_MARROW\_DN  
GSE6259\_33D1\_POS\_DC\_VS\_CD8\_TCELL\_DN, GSE6259\_33D1\_POS\_DC\_VS\_CD8\_TCELL\_DN  
MIR1183, MIR1183  
GSE25088\_CTRL\_VS\_ROSIGLITAZONE\_STIM\_MACROPHAGE\_DN, GSE25088\_CTRL\_VS\_ROSIGLITAZONE\_STIM\_MACROPHAGE\_DN  
MIR630, MIR630  
MIR108\_3P, MIR108\_3P  
MIR3664\_3P, MIR3664\_3P  
MIR549A\_3P, MIR549A\_3P  
MIR100\_3P, MIR100\_3P  
MIR4519, MIR4519  
GOMF\_POLYUBIQUITIN\_MODIFICATION\_DEPENDENT\_PROTEIN\_BINDING, GOMF\_POLYUBIQUITIN\_MODIFICATION\_DEPENDENT\_PROTEIN\_BINDING  
GOBP\_REGULATION\_OF\_MEGAKARYOCYTE\_DIFFERENTIATION, GOBP\_REGULATION\_OF\_MEGAKARYOCYTE\_DIFFERENTIATION  
MIR7843\_3P, MIR7843\_3P  
MIR5089\_5P, MIR5089\_5P  
GOBP\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM, GOBP\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM  
MIR4428, MIR4428  
MIR4646\_5P, MIR4646\_5P  
MIR204\_3P, MIR204\_3P  
GRADE\_COLON\_VS\_RECTAL\_CANCER\_UP, GRADE\_COLON\_VS\_RECTAL\_CANCER\_UP  
GSE29618\_PRE\_VS\_DAY7\_FLU\_VACCINE\_BCELL\_UP, GSE29618\_PRE\_VS\_DAY7\_FLU\_VACCINE\_BCELL\_UP  
MIR6849\_3P, MIR6849\_3P  
MIR1228\_3P, MIR1228\_3P  
MIR449B\_3P, MIR449B\_3P  
GOBP\_ENDOPLASMIC\_RETICULUM\_TO\_CYTOSOL\_TRANSPORT, GOBP\_ENDOPLASMIC\_RETICULUM\_TO\_CYTOSOL\_TRANSPORT  
GSE9601\_UNTREATED\_VS\_P13K\_INHIBITOR\_TREATED\_HCMV\_INF\_MONOCYTE\_DN, GSE9601\_UNTREATED\_VS\_P13K\_INHIBITOR\_TREATED\_HCMV\_INF\_MONOCYTE\_DN  
HP\_ABNORMAL\_LARGE\_INTESTINE\_PHYSIOLOGY, HP\_ABNORMAL\_LARGE\_INTESTINE\_PHYSIOLOGY  
MIR3166, MIR3166  
MIR6776\_3P, MIR6776\_3P  
REACTOME\_INFECTION\_WITH\_MYCOBACTERIUM\_TUBERCULOSIS, REACTOME\_INFECTION\_WITH\_MYCOBACTERIUM\_TUBERCULOSIS  
MIR6820\_3P, MIR6820\_3P  
DAVIES\_MULTIPLE\_MYELOMA\_VS\_MGUS\_DN, DAVIES\_MULTIPLE\_MYELOMA\_VS\_MGUS\_DN  
MIR6796\_3P, MIR6796\_3P  
GOMF\_OMEGA\_PEPTIDASE\_ACTIVITY, GOMF\_OMEGA\_PEPTIDASE\_ACTIVITY  
MIR411\_5P, MIR411\_5P  
MIR3617\_3P, MIR3617\_3P  
GOBP\_NEGATIVE\_REGULATION\_OF\_INTRACELLULAR\_PROTEIN\_TRANSPORT, GOBP\_NEGATIVE\_REGULATION\_OF\_INTRACELLULAR\_PROTEIN\_TRANSPORT  
MIR12128, MIR12128  
GSE13485\_CTRL\_VS\_DAY3\_YF17D\_VACCINE\_PBMC\_UP, GSE13485\_CTRL\_VS\_DAY3\_YF17D\_VACCINE\_PBMC\_UP  
MIR4714\_5P, MIR4714\_5P  
MIR3126\_3P, MIR3126\_3P  
GTAGGCA\_MIR189, GTAGGCA\_MIR189  
GOMF\_ISOPEPTIDASE\_ACTIVITY, GOMF\_ISOPEPTIDASE\_ACTIVITY  
MIR5590\_5P, MIR5590\_5P  
HP\_SCALING\_SKIN, HP\_SCALING\_SKIN  
MIR3142, MIR3142  
WP\_SPHINGOLIPID\_PATHWAY, WP\_SPHINGOLIPID\_PATHWAY  
GOBP\_FIBROBLAST\_MIGRATION, GOBP\_FIBROBLAST\_MIGRATION  
BIOCARTA\_GLEEVEC\_PATHWAY, BIOCARTA\_GLEEVEC\_PATHWAY  
MIR7153\_3P, MIR7153\_3P  
GARGALOVIC\_RESPONSE\_TO\_OXIDIZED\_PHOSPHOLIPIDS\_YELLOW\_DN, GARGALOVIC\_RESPONSE\_TO\_OXIDIZED\_PHOSPHOLIPIDS\_YELLOW\_DN  
PID\_TCR\_JNK\_PATHWAY, PID\_TCR\_JNK\_PATHWAY  
GOMF\_PHOSPHATIDYLINOSITOL\_PHOSPHATE\_PHOSPHATASE\_ACTIVITY, GOMF\_PHOSPHATIDYLINOSITOL\_PHOSPHATE\_PHOSPHATASE\_ACTIVITY  
HOFT\_CD4\_POSITIVE\_ALPHA\_BETA\_MEMORY\_T\_CELL\_BCG\_VACCINE\_AGE\_18\_45YO\_ID\_56D\_TOP\_100\_DEG\_AFTER\_IN\_VITRO\_RE\_STIMULATION\_DN, HOFT\_CD4\_POSITIVE\_ALPHA\_BETA\_MEMORY\_T\_CELL\_BCG\_VACCINE\_AGE\_18\_45YO\_ID\_56D\_TOP\_100\_DEG\_AFTER\_IN\_VITRO\_RE\_STIMULATION\_DN  
GARGALOVIC\_RESPONSE\_TO\_OXIDIZED\_PHOSPHOLIPIDS\_BLUE\_DN, GARGALOVIC\_RESPONSE\_TO\_OXIDIZED\_PHOSPHOLIPIDS\_BLUE\_DN  
BIOCARTA\_PYK2\_PATHWAY, BIOCARTA\_PYK2\_PATHWAY  
HP\_CAPILLARY\_HEMANGIOMA, HP\_CAPILLARY\_HEMANGIOMA  
MIR4650\_5P, MIR4650\_5P  
GOBP\_REGULATION\_OF\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM, GOBP\_REGULATION\_OF\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM  
PID\_NEPHRIN\_NEPHI\_PATHWAY, PID\_NEPHRIN\_NEPHI\_PATHWAY  
GOBP\_PHOSPHATIDYLINOSITOL\_DEPHOSPHORYLATION, GOBP\_PHOSPHATIDYLINOSITOL\_DEPHOSPHORYLATION  
WP\_MAPK\_CASCADE, WP\_MAPK\_CASCADE  
GOBP\_NUCLEAR\_MEMBRANE\_ORGANIZATION, GOBP\_NUCLEAR\_MEMBRANE\_ORGANIZATION  
GOBP\_REGULATION\_OF\_FIBROBLAST\_MIGRATION, GOBP\_REGULATION\_OF\_FIBROBLAST\_MIGRATION  
MIR6807\_5P, MIR6807\_5P  
chr15q15, chr15q15  
PAF1\_TARGET\_GENES, PAF1\_TARGET\_GENES  
GOMF\_UBIQUITIN\_LIKE\_PROTEIN\_SPECIFIC\_PROTEASE\_ACTIVITY, GOMF\_UBIQUITIN\_LIKE\_PROTEIN\_SPECIFIC\_PROTEASE\_ACTIVITY  
MIR1245B\_5P, MIR1245B\_5P  
CCAWWNAAGG\_SRF\_Q4, CCAWWNAAGG\_SRF\_Q4  
GOMF\_CULLIN\_FAMILY\_PROTEIN\_BINDING, GOMF\_CULLIN\_FAMILY\_PROTEIN\_BINDING  
HP\_POOR\_COORDINATION, HP\_POOR\_COORDINATION  
PLASARI\_TGFB1\_TARGETS\_1HR\_UP, PLASARI\_TGFB1\_TARGETS\_1HR\_UP  
MIR1910\_5P, MIR1910\_5P  
GOMF\_K63\_LINKED\_POLYUBIQUITIN\_MODIFICATION\_DEPENDENT\_PROTEIN\_BINDING, GOMF\_K63\_LINKED\_POLYUBIQUITIN\_MODIFICATION\_DEPENDENT\_PROTEIN\_BINDING  
MIR4425, MIR4425  
GOBP\_ENDOPLASMIC\_RETICULUM\_TUBULAR\_NETWORK\_ORGANIZATION, GOBP\_ENDOPLASMIC\_RETICULUM\_TUBULAR\_NETWORK\_ORGANIZATION  
KYNG\_ENVIRONMENTAL\_STRESS\_RESPONSE\_DN, KYNG\_ENVIRONMENTAL\_STRESS\_RESPONSE\_DN  
GOBP\_REGULATION\_OF\_CLATHRIN\_DEPENDENT\_ENDOCYTOSIS, GOBP\_REGULATION\_OF\_CLATHRIN\_DEPENDENT\_ENDOCYTOSIS  
GSE29618\_PRE\_VS\_DAY7\_FLU\_VACCINE\_MDC\_UP, GSE29618\_PRE\_VS\_DAY7\_FLU\_VACCINE\_MDC\_UP  
GOBP\_REGULATION\_OF\_BIOMINERALIZATION, GOBP\_REGULATION\_OF\_BIOMINERALIZATION  
MIR4683, MIR4683  
GOBP\_REGULATION\_OF\_RETROGRADE\_PROTEIN\_TRANSPORT\_ER\_TO\_CYTOSOL, GOBP\_REGULATION\_OF\_RETROGRADE\_PROTEIN\_TRANSPORT\_ER\_TO\_CYTOSOL  
WP\_IL6\_SIGNALING\_PATHWAY, WP\_IL6\_SIGNALING\_PATHWAY  
MORI\_PLASMA\_CELL\_DN, MORI\_PLASMA\_CELL\_DN  
MIR616\_3P, MIR616\_3P  
GOBP\_REGULATION\_OF\_IRE1\_MEDIATED\_UNFOLDED\_PROTEIN\_RESPONSE, GOBP\_REGULATION\_OF\_IRE1\_MEDIATED\_UNFOLDED\_PROTEIN\_RESPONSE  
REACTOME\_INOSITOL\_PHOSPHATE\_METABOLISM, REACTOME\_INOSITOL\_PHOSPHATE\_METABOLISM  
GOMF\_HISTONE\_METHYLTRANSFERASE\_ACTIVITY\_H3\_K4\_SPECIFIC, GOMF\_HISTONE\_METHYLTRANSFERASE\_ACTIVITY\_H3\_K4\_SPECIFIC  
HP\_TRUNCUS\_ARTERIOSUS, HP\_TRUNCUS\_ARTERIOSUS  
GSE32901\_NAIVE\_VS\_TH1\_CD4\_TCELL\_UP, GSE32901\_NAIVE\_VS\_TH1\_CD4\_TCELL\_UP  
AMIT\_EGF\_RESPONSE\_40\_MCF10A, AMIT\_EGF\_RESPONSE\_40\_MCF10A  
PARK\_HSC\_VS\_MULTIPOTENT\_PROGENITORS\_UP, PARK\_HSC\_VS\_MULTIPOTENT\_PROGENITORS\_UP  
HP\_CONJUGATED\_HYPERBILIRUBINEMIA, HP\_CONJUGATED\_HYPERBILIRUBINEMIA  
GOBP\_NEGATIVE\_REGULATION\_OF\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM, GOBP\_NEGATIVE\_REGULATION\_OF\_PROTEIN\_EXIT\_FROM\_ENDOPLASMIC\_RETICULUM  
REACTOME\_SERINE\_BIOSYNTHESIS, REACTOME\_SERINE\_BIOSYNTHESIS  
GOBP\_CELLULAR\_RESPONSE\_TO\_BACTERIAL\_LIPOPROTEIN, GOBP\_CELLULAR\_RESPONSE\_TO\_BACTERIAL\_LIPOPROTEIN  
MIR4320, MIR4320  
GOMF\_CARBOXYPEPTIDASE\_ACTIVITY, GOMF\_CARBOXYPEPTIDASE\_ACTIVITY  
PID\_NFAT\_TFPATHWAY, PID\_NFAT\_TFPATHWAY