```
GSE17721_CTRL_VS_LPS_1H_BMDC_UP, GSE17721_CTRL_VS_LPS_1H_BMDC_UP
GSE17721_LPS_VS_PAM3CSK4_4H_BMDC_DN, GSE17721_LPS_VS_PAM3CSK4_4H_BMDC_DN
GSE46606_UNSTIM_VS_CD40L_IL2_IL5_3DAY_STIMULATED_IRF4MID_SORTED_BCELL_UP, GSE46606_UNSTIM_VS_CD40L_IL2_IL5_3DAY_STIMULATED_IRF4MID_SORTED_BCELL_UP
GSE23925_DARK_ZONE_VS_NAIVE_BCELL_UP, GSE23925_DARK_ZONE_VS_NAIVE_BCELL_UP
 GSE5463_CTRL_VS_DEXAMETHASONE_TREATED_THYMOCYTE_DN, GSE5463_CTRL_VS_DEXAMETHASONE_TREATED_THYMOCYTE_DN
GSE12198_NK_VS_NK_ACT_EXPANSION_SYSTEM_DERIVED_NK_CELL_DN, GSE12198_NK_VS_NK_ACT_EXPANSION_SYSTEM_DERIVED_NK_CELL_DN
GSE17721_LPS_VS_GARDIQUIMOD_8H_BMDC_DN, GSE17721_LPS_VS_GARDIQUIMOD_8H_BMDC_DN
GSE39820_CTRL_VS_TGFBETA3_IL6_IL23A_CD4_TCELL_DN, GSE39820_CTRL_VS_TGFBETA3_IL6_IL23A_CD4_TCELL_DN
GSE24292 WT VS PPARG KO MACROPHAGE UP, GSE24292 WT VS PPARG KO MACROPHAGE UP
GSE3720_VD1_VS_VD2_GAMMADELTA_TCELL_WITH_LPS_STIM_DN, GSE3720_VD1_VS_VD2_GAMMADELTA_TCELL_WITH_LPS_STIM_DN
GSE339_EX_VIVO_VS_IN_CULTURE_CD4CD8DN_DC_DN, GSE339_EX_VIVO_VS_IN_CULTURE_CD4CD8DN_DC_DN
GSE339 EX VIVO VS IN CULTURE CD8POS DC DN, GSE339 EX VIVO VS IN CULTURE CD8POS DC DN
GSE15330_WT_VS_IKAROS_KO_GRANULOCYTE_MONOCYTE_PROGENITOR_DN, GSE15330_WT_VS_IKAROS_KO_GRANULOCYTE_MONOCYTE_PROGENITOR_DN
GSE33425_CD161_HIGH_VS_NEG_CD8_TCELL_DN, GSE33425_CD161_HIGH_VS_NEG_CD8_TCELL_DN
GSE411_UNSTIM_VS_100MIN_IL6_STIM_MACROPHAGE_UP, GSE411_UNSTIM_VS_100MIN_IL6_STIM_MACROPHAGE_UP
GSE17721_0.5H_VS_24H_GARDIQUIMOD_BMDC_UP, GSE17721_0.5H_VS_24H_GARDIQUIMOD_BMDC_UP
SEIDEN_ONCOGENESIS_BY_MET, SEIDEN_ONCOGENESIS_BY_MET
GSE2770_UNTREATED_VS_ACT_CD4_TCELL_6H_UP, GSE2770_UNTREATED_VS_ACT_CD4_TCELL_6H_UP
GSE38681_WT_VS_LYL1_KO_LYMPHOID_PRIMED_MULTIPOTENT_PROGENITOR_UP, GSE38681_WT_VS_LYL1_KO_LYMPHOID_PRIMED_MULTIPOTENT_PROGENITOR_UP
KAECH_NAIVE_VS_DAY15_EFF_CD8_TCELL_DN, KAECH_NAIVE_VS_DAY15_EFF_CD8_TCELL_DN
GSE19923_HEB_KO_VS_HEB_AND_E2A_KO_DP_THYMOCYTE_DN, GSE19923_HEB_KO_VS_HEB_AND_E2A_KO_DP_THYMOCYTE_DN
GSE37416 CTRL VS 6H F TULARENSIS LVS NEUTROPHIL DN, GSE37416 CTRL VS 6H F TULARENSIS LVS NEUTROPHIL DN
KAECH_NAIVE_VS_MEMORY_CD8_TCELL_DN, KAECH_NAIVE_VS_MEMORY_CD8_TCELL_DN
KAECH_NAIVE_VS_DAY15_EFF_CD8_TCELL_UP, KAECH_NAIVE_VS_DAY15_EFF_CD8_TCELL_UP
GSE26030_TH1_VS_TH17_DAY15_POST_POLARIZATION_UP, GSE26030_TH1_VS_TH17_DAY15_POST_POLARIZATION_UP
GSE23308_WT_VS_MINERALCORTICOID_REC_KO_MACROPHAGE_CORTICOSTERONE_TREATED_DN, GSE23308_WT_VS_MINERALCORTICOID_REC_KO_MACROPHAGE_CORTICOSTERONE_TREATED
ACACTAC_MIR1423P, ACACTAC_MIR1423P
GSE36078_WT_VS_IL1R_KO_LUNG_DC_AFTER_AD5_T425A_HEXON_INF_UP, GSE36078_WT_VS_IL1R_KO_LUNG_DC_AFTER_AD5_T425A_HEXON_INF_UP
GSE12198_NK_VS_NK_ACT_EXPANSION_SYSTEM_DERIVED_NK_CELL_UP, GSE12198_NK_VS_NK_ACT_EXPANSION_SYSTEM_DERIVED_NK_CELL_UP
EGFR_UP.V1_DN, EGFR_UP.V1_DN
GSE5142_CTRL_VS_HTERT_TRANSDUCED_CD8_TCELL_EARLY_PASSAGE_CLONE_UP, GSE5142_CTRL_VS_HTERT_TRANSDUCED_CD8_TCELL_EARLY_PASSAGE_CLONE_UP
GSE13946_CTRL_VS_DSS_COLITIS_GD_TCELL_FROM_COLON_UP, GSE13946_CTRL_VS_DSS_COLITIS_GD_TCELL_FROM_COLON_UP
GSE33513_TCF7_KO_VS_HET_EARLY_THYMIC_PROGENITOR_DN, GSE33513_TCF7_KO_VS_HET_EARLY_THYMIC_PROGENITOR_DN
GSE17721_LPS_VS_GARDIQUIMOD_0.5H_BMDC_UP, GSE17721_LPS_VS_GARDIQUIMOD_0.5H_BMDC_UP
GSE2585_CTEC_VS_THYMIC_MACROPHAGE_DN, GSE2585_CTEC_VS_THYMIC_MACROPHAGE_DN
GO_PROTEIN_K48_LINKED_UBIQUITINATION, GO_PROTEIN_K48_LINKED_UBIQUITINATION
GSE3039_ALPHAALPHA_VS_ALPHABETA_CD8_TCELL_UP, GSE3039_ALPHAALPHA_VS_ALPHABETA_CD8_TCELL_UP
GSE42021_TCONV_PLN_VS_CD24INT_TCONV_THYMUS_DN, GSE42021_TCONV_PLN_VS_CD24INT_TCONV_THYMUS_DN
GSE11961_PLASMA_CELL_DAY7_VS_MEMORY_BCELL_DAY40_UP, GSE11961_PLASMA_CELL_DAY7_VS_MEMORY_BCELL_DAY40_UP
GSE21927_UNTREATED_VS_GMCSF_GCSF_TREATED_BONE_MARROW_DN, GSE21927_UNTREATED_VS_GMCSF_GCSF_TREATED_BONE_MARROW_DN
GSE15330_LYMPHOID_MULTIPOTENT_VS_MEGAKARYOCYTE_ERYTHROID_PROGENITOR_IKAROS_KO_DN, GSE15330_LYMPHOID_MULTIPOTENT_VS_MEGAKARYOCYTE_ERYTHROID_PROGENITO
GSE7219_WT_VS_NIK_NFKB2_KO_LPS_AND_ANTI_CD40_STIM_DC_UP, GSE7219_WT_VS_NIK_NFKB2_KO_LPS_AND_ANTI_CD40_STIM_DC_UP
GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_10H_UP, GSE43955_TH0_VS_TGFB_IL6_TH17_ACT_CD4_TCELL_10H_UP
GSE15735_2H_VS_12H_HDAC_INHIBITOR_TREATED_CD4_TCELL_UP, GSE15735_2H_VS_12H_HDAC_INHIBITOR_TREATED_CD4_TCELL_UP
GSE37532_WT_VS_PPARG_KO_VISCERAL_ADIPOSE_TISSUE_TREG_DN, GSE37532_WT_VS_PPARG_KO_VISCERAL_ADIPOSE_TISSUE_TREG_DN
GCATTTG_MIR105, GCATTTG_MIR105
KEGG_FC_GAMMA_R_MEDIATED_PHAGOCYTOSIS, KEGG_FC_GAMMA_R_MEDIATED_PHAGOCYTOSIS
GSE36527_CD62L_HIGH_CD69_NEG_VS_CD62L_LOW_CD69_POS_TREG_KLRG1_NEG_DN, GSE36527_CD62L_HIGH_CD69_NEG_VS_CD62L_LOW_CD69_POS_TREG_KLRG1_NEG_DN
GSE34205_HEALTHY_VS_RSV_INF_INFANT_PBMC_DN, GSE34205_HEALTHY_VS_RSV_INF_INFANT_PBMC_DN
GSE43955_10H_VS_60H_ACT_CD4_TCELL_UP, GSE43955_10H_VS_60H_ACT_CD4_TCELL_UP
PID CXCR4 PATHWAY, PID CXCR4 PATHWAY
GSE15330_HSC_VS_LYMPHOID_PRIMED_MULTIPOTENT_PROGENITOR_UP, GSE15330_HSC_VS_LYMPHOID_PRIMED_MULTIPOTENT_PROGENITOR_UP
GSE25088_CTRL_VS_ROSIGLITAZONE_STIM_MACROPHAGE_UP, GSE25088_CTRL_VS_ROSIGLITAZONE_STIM_MACROPHAGE_UP
GSE16522 ANTI CD3CD28 STIM VS_UNSTIM_NAIVE_CD8_TCELL_UP, GSE16522 ANTI CD3CD28 STIM_VS_UNSTIM_NAIVE_CD8_TCELL_UP
chr15q21, chr15q21
GO_GDP_BINDING, GO_GDP_BINDING
GSE19941_UNSTIM_VS_LPS_AND_IL10_STIM_IL10_KO_NFKBP50_KO_MACROPHAGE_DN, GSE19941_UNSTIM_VS_LPS_AND_IL10_STIM_IL10_KO_NFKBP50_KO_MACROPHAGE_DN
MARSON_FOXP3_TARGETS_UP, MARSON_FOXP3_TARGETS_UP
GSE32423_CTRL_VS_IL4_MEMORY_CD8_TCELL_UP, GSE32423_CTRL_VS_IL4_MEMORY_CD8_TCELL_UP
GSE4748_CTRL_VS_LPS_STIM_DC_3H_DN, GSE4748_CTRL_VS_LPS_STIM_DC_3H_DN
 GSE360_CTRL_VS_B_MALAYI_HIGH_DOSE_DC_UP, GSE360_CTRL_VS_B_MALAYI_HIGH_DOSE_DC_UP
GSE37301_HEMATOPOIETIC_STEM_CELL_VS_GRAN_MONO_PROGENITOR_UP, GSE37301_HEMATOPOIETIC_STEM_CELL_VS_GRAN_MONO_PROGENITOR_UP
 SMIRNOV_RESPONSE_TO_IR_2HR_UP, SMIRNOV_RESPONSE_TO_IR_2HR_UP
GO_NEGATIVE_REGULATION_OF_CYTOPLASMIC_TRANSPORT, GO_NEGATIVE_REGULATION_OF_CYTOPLASMIC_TRANSPORT
GSE17721_CTRL_VS_LPS_0.5H_BMDC_DN, GSE17721_CTRL_VS_LPS_0.5H_BMDC_DN
 ADDYA_ERYTHROID_DIFFERENTIATION_BY_HEMIN, ADDYA_ERYTHROID_DIFFERENTIATION_BY_HEMIN
PID_ECADHERIN_NASCENT_AJ_PATHWAY, PID_ECADHERIN_NASCENT_AJ_PATHWAY
KEGG_AXON_GUIDANCE, KEGG_AXON_GUIDANCE
 KEGG_ERBB_SIGNALING_PATHWAY, KEGG_ERBB_SIGNALING_PATHWAY
GO_ACTIN_BASED_CELL_PROJECTION, GO_ACTIN_BASED_CELL_PROJECTION
SESTO_RESPONSE_TO_UV_C7, SESTO_RESPONSE_TO_UV_C7
PID_MYC_REPRESS_PATHWAY, PID_MYC_REPRESS_PATHWAY
GO_NEGATIVE_REGULATION_OF_INTRACELLULAR_TRANSPORT, GO_NEGATIVE_REGULATION_OF_INTRACELLULAR_TRANSPORT
GSE2706_R848_VS_R848_AND_LPS_8H_STIM_DC_DN, GSE2706_R848_VS_R848_AND_LPS_8H_STIM_DC_DN
GO_GLIAL_CELL_DEVELOPMENT, GO_GLIAL_CELL_DEVELOPMENT
IKEDA_MIR133_TARGETS_UP, IKEDA_MIR133_TARGETS_UP
ELVIDGE_HYPOXIA_BY_DMOG_UP, ELVIDGE_HYPOXIA_BY_DMOG_UP
 GSE32034 LY6C HIGH VS LOW MONOCYTE UP, GSE32034 LY6C HIGH VS LOW MONOCYTE UP
GO_REGULATION_OF_PROTEIN_EXPORT_FROM_NUCLEUS, GO_REGULATION_OF_PROTEIN_EXPORT_FROM_NUCLEUS
GO_SNARE_BINDING, GO_SNARE_BINDING
GSE25123_WT_VS_PPARG_KO_MACROPHAGE_IL4_STIM_DN, GSE25123_WT_VS_PPARG_KO_MACROPHAGE_IL4_STIM_DN
GSE1925_CTRL_VS_IFNG_PRIMED_MACROPHAGE_24H_IFNG_STIM_UP, GSE1925_CTRL_VS_IFNG_PRIMED_MACROPHAGE_24H_IFNG_STIM_UP
GSE9650_NAIVE_VS_EXHAUSTED_CD8_TCELL_DN, GSE9650_NAIVE_VS_EXHAUSTED_CD8_TCELL_DN
LIU_PROSTATE_CANCER_UP, LIU_PROSTATE_CANCER_UP
 WANG_RESPONSE_TO_ANDROGEN_UP, WANG_RESPONSE_TO_ANDROGEN_UP
 GSE17721_CPG_VS_GARDIQUIMOD_12H_BMDC_UP, GSE17721_CPG_VS_GARDIQUIMOD_12H_BMDC_UP
 GO_NUCLEAR_TRANSCRIPTION_FACTOR_COMPLEX, GO_NUCLEAR_TRANSCRIPTION_FACTOR_COMPLEX
GROSS_HYPOXIA_VIA_ELK3_AND_HIF1A_UP, GROSS_HYPOXIA_VIA_ELK3_AND_HIF1A_UP
MODULE_312, MODULE_312
FARDIN_HYPOXIA_11, FARDIN_HYPOXIA_11
GSE9960_GRAM_POS_VS_GRAM_NEG_AND_POS_SEPSIS_PBMC_DN, GSE9960_GRAM_POS_VS_GRAM_NEG_AND_POS_SEPSIS_PBMC_DN
 GSE5589_LPS_AND_IL10_VS_LPS_AND_IL6_STIM_IL10_KO_MACROPHAGE_45MIN_UP, GSE5589_LPS_AND_IL10_VS_LPS_AND_IL6_STIM_IL10_KO_MACROPHAGE_45MIN_UP
GO REGULATION OF STEM CELL DIFFERENTIATION, GO REGULATION OF STEM CELL DIFFERENTIATION
LIANG HEMATOPOIESIS STEM CELL NUMBER SMALL VS HUGE UP, LIANG HEMATOPOIESIS STEM CELL NUMBER SMALL VS HUGE UP
GO_ORGANELLE_MEMBRANE_FUSION, GO_ORGANELLE_MEMBRANE_FUSION
BIOCARTA_P53HYPOXIA_PATHWAY, BIOCARTA_P53HYPOXIA_PATHWAY
GSE17721_CPG_VS_GARDIQUIMOD_2H_BMDC_UP, GSE17721_CPG_VS_GARDIQUIMOD_2H_BMDC_UP
GO NCRNA 3 END PROCESSING, GO NCRNA 3 END PROCESSING
GSE23505_UNTREATED_VS_4DAY_IL6_IL1_TREATED_CD4_TCELL_DN, GSE23505_UNTREATED_VS_4DAY_IL6_IL1_TREATED_CD4_TCELL_DN
GSE27786_CD4_TCELL_VS_NEUTROPHIL_DN, GSE27786_CD4_TCELL_VS_NEUTROPHIL_DN
CHEN ETV5_TARGETS_TESTIS, CHEN_ETV5_TARGETS_TESTIS
NAKAYAMA_FRA2_TARGETS, NAKAYAMA_FRA2_TARGETS
GO_INTRAMOLECULAR_TRANSFERASE_ACTIVITY, GO_INTRAMOLECULAR_TRANSFERASE_ACTIVITY
GO_CIRCADIAN_RHYTHM, GO_CIRCADIAN_RHYTHM
GO_VESICLE_DOCKING, GO_VESICLE_DOCKING
GCM_DDX11, GCM_DDX11
PID_PI3KCI_PATHWAY, PID_PI3KCI_PATHWAY
MCCLUNG_CREB1_TARGETS_UP, MCCLUNG_CREB1_TARGETS_UP
GSE26488_WT_VS_HDAC7_DELTAP_TG_OT2_THYMOCYTE_WITH_PEPTIDE_INJECTION_UP, GSE26488_WT_VS_HDAC7_DELTAP_TG_OT2_THYMOCYTE_WITH_PEPTIDE_INJECTION_UP
YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_6, YAO_TEMPORAL_RESPONSE_TO_PROGESTERONE_CLUSTER_6
GO VESICLE DOCKING INVOLVED IN EXOCYTOSIS, GO VESICLE DOCKING INVOLVED IN EXOCYTOSIS
GO_PROTEIN_DEPOLYMERIZATION, GO_PROTEIN_DEPOLYMERIZATION
GSE33292_DN3_THYMOCYTE_VS_TCELL_LYMPHOMA_FROM_TCF1_KO_DN, GSE33292_DN3_THYMOCYTE_VS_TCELL_LYMPHOMA_FROM_TCF1_KO_DN
ROVERSI_GLIOMA_COPY_NUMBER_DN, ROVERSI_GLIOMA_COPY_NUMBER_DN
KEGG_RENAL_CELL_CARCINOMA, KEGG_RENAL_CELL_CARCINOMA
GO_REGULATION_OF_PEPTIDYL_THREONINE_PHOSPHORYLATION, GO_REGULATION_OF_PEPTIDYL_THREONINE_PHOSPHORYLATION
BIOCARTA_HCMV_PATHWAY, BIOCARTA_HCMV_PATHWAY
RAY_TARGETS_OF_P210_BCR_ABL_FUSION_DN, RAY_TARGETS_OF_P210_BCR_ABL_FUSION_DN
GO_INTERACTION_WITH_SYMBIONT, GO_INTERACTION_WITH_SYMBIONT
GO_PHOSPHATIDYLETHANOLAMINE_METABOLIC_PROCESS, GO_PHOSPHATIDYLETHANOLAMINE_METABOLIC_PROCESS
PID_RHOA_PATHWAY, PID_RHOA_PATHWAY
BIOCARTA_EIF2_PATHWAY, BIOCARTA_EIF2_PATHWAY
LEONARD_HYPOXIA, LEONARD_HYPOXIA
GO_REGULATION_OF_CARBOHYDRATE_CATABOLIC_PROCESS, GO_REGULATION_OF_CARBOHYDRATE_CATABOLIC_PROCESS
GO_RECYCLING_ENDOSOME_MEMBRANE, GO_RECYCLING_ENDOSOME_MEMBRANE
GO POSITIVE REGULATION_OF_PROTEIN_EXPORT_FROM_NUCLEUS, GO_POSITIVE_REGULATION_OF_PROTEIN_EXPORT_FROM_NUCLEUS
REACTOME_RORA_ACTIVATES_CIRCADIAN_EXPRESSION, REACTOME_RORA_ACTIVATES_CIRCADIAN_EXPRESSION
AGTCTAG_MIR151, AGTCTAG_MIR151
GO_TAU_PROTEIN_KINASE_ACTIVITY, GO_TAU_PROTEIN_KINASE_ACTIVITY
REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS, REACTOME_G_ALPHA_Z_SIGNALLING_EVENTS
ZHENG_FOXP3_TARGETS_UP, ZHENG_FOXP3_TARGETS_UP
WANG_RESPONSE_TO_FORSKOLIN_UP, WANG_RESPONSE_TO_FORSKOLIN_UP
GSE15750_WT_VS_TRAF6KO_DAY6_EFF_CD8_TCELL_DN, GSE15750_WT_VS_TRAF6KO_DAY6_EFF_CD8_TCELL_DN
GO_REGULATION_OF_ERYTHROCYTE_DIFFERENTIATION, GO_REGULATION_OF_ERYTHROCYTE_DIFFERENTIATION
GO_PERINUCLEAR_ENDOPLASMIC_RETICULUM, GO_PERINUCLEAR_ENDOPLASMIC_RETICULUM
chr14q21, chr14q21
GO_MYOTUBE_DIFFERENTIATION, GO_MYOTUBE_DIFFERENTIATION
BIOCARTA_MET_PATHWAY, BIOCARTA_MET_PATHWAY
KIM_HYPOXIA, KIM_HYPOXIA
WANG_METASTASIS_OF_BREAST_CANCER_ESR1_DN, WANG_METASTASIS_OF_BREAST_CANCER_ESR1_DN
GSE17721_CTRL_VS_LPS_4H_BMDC_DN, GSE17721_CTRL_VS_LPS_4H_BMDC_DN
GO_POSITIVE_REGULATION_OF_AXON_EXTENSION, GO_POSITIVE_REGULATION_OF_AXON_EXTENSION
GERHOLD_RESPONSE_TO_TZD_DN, GERHOLD_RESPONSE_TO_TZD_DN
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KYNG_ENVIRONMENTAL_STRESS_RESPONSE_NOT_BY_UV_IN_OLD, KYNG_ENVIRONMENTAL_STRESS_RESPONSE_NOT_BY_UV_IN_OLD

GO_EPITHELIAL_TO_MESENCHYMAL_TRANSITION, GO_EPITHELIAL_TO_MESENCHYMAL_TRANSITION

LANDIS_BREAST_CANCER_PROGRESSION_UP, LANDIS_BREAST_CANCER_PROGRESSION_UP

GO_RNA_POLYADENYLATION, GO_RNA_POLYADENYLATION

ABBUD_LIF_SIGNALING_1_DN, ABBUD_LIF_SIGNALING_1_DN GO_SYNCYTIUM_FORMATION, GO_SYNCYTIUM_FORMATION

GSE2585_THYMIC_DC_VS_THYMIC_MACROPHAGE_UP, GSE2585_THYMIC_DC_VS_THYMIC_MACROPHAGE_UP

TORCHIA_TARGETS_OF_EWSR1_FLI1_FUSION_TOP20_DN, TORCHIA_TARGETS_OF_EWSR1_FLI1_FUSION_TOP20_DN

GO MODIFICATION OF MORPHOLOGY OR PHYSIOLOGY OF OTHER ORGANISM, GO MODIFICATION OF MORPHOLOGY OR PHYSIOLOGY OF OTHER ORGANISM

GO_OXIDOREDUCTASE_ACTIVITY_ACTING_ON_THE_CH_NH_GROUP_OF_DONORS_NAD_OR_NADP_AS_ACCEPTOR, GO_OXIDOREDUCTASE_ACTIVITY_ACTING_ON_THE_CH_NH_GROUP_OF_DO

GSE10239_MEMORY_VS_DAY4.5_EFF_CD8_TCELL_DN, GSE10239_MEMORY_VS_DAY4.5_EFF_CD8_TCELL_DN

GSE33425 CD161 INT VS NEG CD8 TCELL UP, GSE33425 CD161 INT VS NEG CD8 TCELL UP

A2AR_AGONIST_TREATED_TREG_UP, GSE34006_UNTREATED_VS_A2AR_AGONIST_TREATED_TREG_UP