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REACTOME SEPARATION OF SISTER CHROMATIDS, REACTOME SEPARATION OF SISTER CHROMATIDS
                                        REACTOME MITOTIC SPINDLE CHECKPOINT, REACTOME MITOTIC SPINDLE CHECKPOINT
                                        REACTOME_REGULATION_OF_EXPRESSION_OF_SLITS_AND_ROBOS, REACTOME_REGULATION_OF_EXPRESSION_OF_SLITS_AND_ROBOS
                                        REACTOME G2 M CHECKPOINTS, REACTOME G2 M CHECKPOINTS
                                        REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION, REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION
                                        REACTOME_DNA_REPLICATION, REACTOME_DNA_REPLICATION
                                        WP_RETINOBLASTOMA_GENE_IN_CANCER, WP_RETINOBLASTOMA_GENE_IN_CANCER
                                        REACTOME_MITOTIC_G2_G2_M_PHASES, REACTOME_MITOTIC_G2_G2_M_PHASES
                                        REACTOME_HOMOLOGY_DIRECTED_REPAIR, REACTOME_HOMOLOGY_DIRECTED_REPAIR
                                        REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR, REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR
                                        WP_DNA_REPAIR_PATHWAYS_FULL_NETWORK, WP_DNA_REPAIR_PATHWAYS_FULL_NETWORK
                                        REACTOME MEIOSIS, REACTOME MEIOSIS
                                        REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS, REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS
                                        REACTOME_REGULATION_OF_TP53_ACTIVITY, REACTOME_REGULATION_OF_TP53_ACTIVITY
                                       REACTOME_PTEN_REGULATION, REACTOME_PTEN_REGULATION
                                       REACTOME APC C CDH1 MEDIATED DEGRADATION OF CDC20 AND OTHER APC C CDH1 TARGETED PROTEINS IN LATE MITOSIS EARLY G1, REACTOME APC C CDH1 MEDIATED DEGRADATION OF CDC20 AND OTHER APC C CDH1 TARGETED PROTEINS IN LATE MITOSIS EARLY G1
                                        KEGG_CELL_CYCLE, KEGG_CELL_CYCLE
                                       REACTOME_CELLULAR_SENESCENCE, REACTOME_CELLULAR_SENESCENCE
                                       REACTOME_HOST_INTERACTIONS_OF_HIV_FACTORS, REACTOME_HOST_INTERACTIONS_OF_HIV_FACTORS
                                        REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION, REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION
                                       REACTOME_DNA_REPLICATION_PRE_INITIATION, REACTOME_DNA_REPLICATION_PRE_INITIATION
                                       WP_CELL_CYCLE, WP_CELL_CYCLE
                                       REACTOME_G2_M_DNA_DAMAGE_CHECKPOINT, REACTOME_G2_M_DNA_DAMAGE_CHECKPOINT
                                       REACTOME_GLOBAL_GENOME_NUCLEOTIDE_EXCISION_REPAIR_GG_NER, REACTOME_GLOBAL_GENOME_NUCLEOTIDE_EXCISION_REPAIR_GG_NER
                                       REACTOME_SENESCENCE_ASSOCIATED_SECRETORY_PHENOTYPE_SASP, REACTOME_SENESCENCE_ASSOCIATED_SECRETORY_PHENOTYPE_SASP
                                       REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RICH_ELEMENTS, REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RICH_ELEMENTS
                                       REACTOME_BASE_EXCISION_REPAIR, REACTOME_BASE_EXCISION_REPAIR
                                       REACTOME_OXIDATIVE_STRESS_INDUCED_SENESCENCE, REACTOME_OXIDATIVE_STRESS_INDUCED_SENESCENCE
                                       REACTOME REPRODUCTION, REACTOME REPRODUCTION
                                       REACTOME_REGULATION_OF_PTEN_STABILITY_AND_ACTIVITY, REACTOME_REGULATION_OF_PTEN_STABILITY_AND_ACTIVITY
                                       REACTOME_SWITCHING_OF_ORIGINS_TO_A_POST_REPLICATIVE_STATE, REACTOME_SWITCHING_OF_ORIGINS_TO_A_POST_REPLICATIVE_STATE
                                       REACTOME_PROCESSING_OF_DNA_DOUBLE_STRAND_BREAK_ENDS, REACTOME_PROCESSING_OF_DNA_DOUBLE_STRAND_BREAK_ENDS
                                        REACTOME_CELLULAR_RESPONSE_TO_CHEMICAL_STRESS, REACTOME_CELLULAR_RESPONSE_TO_CHEMICAL_STRESS
                                        WP_DNA_REPLICATION, WP_DNA_REPLICATION
                                        REACTOME_RUNX1_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_DIFFERENTIATION_OF_HSCS, REACTOME_RUNX1_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_DIFFERENTIATION_OF_HSCS
                                        REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRR, REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRR
                                       REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESCENCE, REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESCENCE
                                       REACTOME_CYTOPROTECTION_BY_HMOX1, REACTOME_CYTOPROTECTION_BY_HMOX1
                                        REACTOME_DEGRADATION_OF_BETA_CATENIN_BY_THE_DESTRUCTION_COMPLEX, REACTOME_DEGRADATION_OF_BETA_CATENIN_BY_THE_DESTRUCTION_COMPLEX
                                       WP_DNA_IRDAMAGE_AND_CELLULAR_RESPONSE_VIA_ATR, WP_DNA_IRDAMAGE_AND_CELLULAR_RESPONSE_VIA_ATR
                                       REACTOME_CLEC7A_DECTIN_1_SIGNALING, REACTOME_CLEC7A_DECTIN_1_SIGNALING
                                        REACTOME_DISEASES_OF_PROGRAMMED_CELL_DEATH, REACTOME_DISEASES_OF_PROGRAMMED_CELL_DEATH
                                        REACTOME_DNA_STRAND_ELONGATION, REACTOME_DNA_STRAND_ELONGATION
                                        REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS, REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS
                                       REACTOME REGULATION OF RUNX3 EXPRESSION AND ACTIVITY, REACTOME REGULATION OF RUNX3 EXPRESSION AND ACTIVITY
                                       REACTOME_DNA_DAMAGE_RECOGNITION_IN_GG_NER, REACTOME_DNA_DAMAGE_RECOGNITION_IN_GG_NER
                                        REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR, REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR
                                        REACTOME_DEFECTIVE_CFTR_CAUSES_CYSTIC_FIBROSIS, REACTOME_DEFECTIVE_CFTR_CAUSES_CYSTIC_FIBROSIS
                                        REACTOME DEGRADATION OF GLI1 BY THE PROTEASOME, REACTOME DEGRADATION OF GLI1 BY THE PROTEASOME
                                        REACTOME SUMOYLATION OF DNA DAMAGE RESPONSE AND REPAIR PROTEINS, REACTOME SUMOYLATION OF DNA DAMAGE RESPONSE AND REPAIR PROTEINS
                                        REACTOME_NEGATIVE_REGULATION_OF_NOTCH4_SIGNALING, REACTOME_NEGATIVE_REGULATION_OF_NOTCH4_SIGNALING
                                        REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX, REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX
                                        REACTOME REGULATION OF RAS BY GAPS, REACTOME REGULATION OF RAS BY GAPS
                                       WP_MIRNAS_INVOLVED_IN_DNA_DAMAGE_RESPONSE, WP_MIRNAS_INVOLVED_IN_DNA_DAMAGE_RESPONSE
                                        KEGG_DNA_REPLICATION, KEGG_DNA_REPLICATION
                                        REACTOME_CYCLIN_A_CDK2_ASSOCIATED_EVENTS_AT_S_PHASE_ENTRY, REACTOME_CYCLIN_A_CDK2_ASSOCIATED_EVENTS_AT_S_PHASE_ENTRY
                                        REACTOME E2F MEDIATED REGULATION OF DNA REPLICATION, REACTOME E2F MEDIATED REGULATION OF DNA REPLICATION
                                        REACTOME_AUF1_HNRNP_D0_BINDS_AND_DESTABILIZES_MRNA, REACTOME_AUF1_HNRNP_D0_BINDS_AND_DESTABILIZES_MRNA
                                        REACTOME_DEGRADATION_OF_DVL, REACTOME_DEGRADATION_OF_DVL
                                       REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX, REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX
                                        REACTOME_REGULATION_OF_HMOX1_EXPRESSION_AND_ACTIVITY, REACTOME_REGULATION_OF_HMOX1_EXPRESSION_AND_ACTIVITY
                                       REACTOME_CELLULAR_RESPONSE_TO_HYPOXIA, REACTOME_CELLULAR_RESPONSE_TO_HYPOXIA
                                       REACTOME_DECTIN_1_MEDIATED_NONCANONICAL_NF_KB_SIGNALING, REACTOME_DECTIN_1_MEDIATED_NONCANONICAL_NF_KB_SIGNALING
                                        KEGG_UBIQUITIN_MEDIATED_PROTEOLYSIS, KEGG_UBIQUITIN_MEDIATED_PROTEOLYSIS
                                       PID_P53_REGULATION_PATHWAY, PID_P53_REGULATION_PATHWAY
                                       REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANGE, REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANGE
                                       REACTOME_DEGRADATION_OF_AXIN, REACTOME_DEGRADATION_OF_AXIN
                                       REACTOME_REGULATION_OF_RUNX2_EXPRESSION_AND_ACTIVITY, REACTOME_REGULATION_OF_RUNX2_EXPRESSION_AND_ACTIVITY
                                       REACTOME_STABILIZATION_OF_P53, REACTOME_STABILIZATION_OF_P53
                                       WP_G1_TO_S_CELL_CYCLE_CONTROL, WP_G1_TO_S_CELL_CYCLE_CONTROL
                                        REACTOME_MAPK6_MAPK4_SIGNALING, REACTOME_MAPK6_MAPK4_SIGNALING
                                        REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOSOMES, REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOSOMES
                                        REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER, REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER
                                        REACTOME_SIGNALING_BY_HEDGEHOG, REACTOME_SIGNALING_BY_HEDGEHOG
                                        REACTOME_PROTEIN_UBIQUITINATION, REACTOME_PROTEIN_UBIQUITINATION
                                        REACTOME_ORC1_REMOVAL_FROM_CHROMATIN, REACTOME_ORC1_REMOVAL_FROM_CHROMATIN
                                        REACTOME_DNA_DAMAGE_BYPASS, REACTOME_DNA_DAMAGE_BYPASS
                                        REACTOME_UCH_PROTEINASES, REACTOME_UCH_PROTEINASES
                                        REACTOME_SCF_SKP2_MEDIATED_DEGRADATION_OF_P27_P21, REACTOME_SCF_SKP2_MEDIATED_DEGRADATION_OF_P27_P21
                                        REACTOME_ASYMMETRIC_LOCALIZATION_OF_PCP_PROTEINS, REACTOME_ASYMMETRIC_LOCALIZATION_OF_PCP_PROTEINS
                                        REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_PHOSPHORYLATION, REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_PHOSPHORYLATION
                                        PID_FANCONI_PATHWAY, PID_FANCONI_PATHWAY
                                        REACTOME_HEDGEHOG_LIGAND_BIOGENESIS, REACTOME_HEDGEHOG_LIGAND_BIOGENESIS
                                        REACTOME_SARS_COV_2_INFECTION, REACTOME_SARS_COV_2_INFECTION
                                        REACTOME APOPTOSIS, REACTOME APOPTOSIS
                                        REACTOME_TRANSLATION_OF_SARS_COV_2_STRUCTURAL_PROTEINS, REACTOME_TRANSLATION_OF_SARS_COV_2_STRUCTURAL_PROTEINS
                                        REACTOME_SIGNALING_BY_NOTCH4, REACTOME_SIGNALING_BY_NOTCH4
                                        REACTOME_PCP_CE_PATHWAY, REACTOME_PCP_CE_PATHWAY
                                        REACTOME_EXTENSION_OF_TELOMERES, REACTOME_EXTENSION_OF_TELOMERES
                                        PID_PLK1_PATHWAY, PID_PLK1_PATHWAY
                                        REACTOME HEDGEHOG ON STATE, REACTOME HEDGEHOG ON STATE
                                       PID_FOXM1_PATHWAY, PID_FOXM1_PATHWAY
                                       WP_TGFBETA_SIGNALING_PATHWAY, WP_TGFBETA_SIGNALING_PATHWAY
                                       REACTOME_METALLOPROTEASE_DUBS, REACTOME_METALLOPROTEASE_DUBS
                                        REACTOME_C_TYPE_LECTIN_RECEPTORS_CLRS, REACTOME_C_TYPE_LECTIN_RECEPTORS_CLRS
                                        REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA, REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA
                                        REACTOME_G1_S_DNA_DAMAGE_CHECKPOINTS, REACTOME_G1_S_DNA_DAMAGE_CHECKPOINTS
                                        REACTOME_G1_S_SPECIFIC_TRANSCRIPTION, REACTOME_G1_S_SPECIFIC_TRANSCRIPTION
                                        REACTOME TRANSCRIPTIONAL REGULATION BY RUNX3, REACTOME TRANSCRIPTIONAL REGULATION BY RUNX3
                                        REACTOME FANCONI ANEMIA PATHWAY, REACTOME FANCONI ANEMIA PATHWAY
                                        REACTOME_INTERLEUKIN_1_SIGNALING, REACTOME_INTERLEUKIN_1_SIGNALING
                                       REACTOME_DUAL_INCISION_IN_GG_NER, REACTOME_DUAL_INCISION_IN_GG_NER
                                       WP_PROTEASOME_DEGRADATION, WP_PROTEASOME_DEGRADATION
                                        KEGG_OOCYTE_MEIOSIS, KEGG_OOCYTE_MEIOSIS
                                       KEGG NUCLEOTIDE EXCISION REPAIR, KEGG NUCLEOTIDE EXCISION REPAIR
                                       REACTOME_BETA_CATENIN_INDEPENDENT_WNT_SIGNALING, REACTOME_BETA_CATENIN_INDEPENDENT_WNT_SIGNALING
                                       KEGG_PROTEASOME, KEGG_PROTEASOME
                                       WP_NUCLEOTIDE_EXCISION_REPAIR, WP_NUCLEOTIDE_EXCISION_REPAIR
                                       REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION, REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION
                                       REACTOME_E3_UBIQUITIN_LIGASES_UBIQUITINATE_TARGET_PROTEINS, REACTOME_E3_UBIQUITIN_LIGASES_UBIQUITINATE_TARGET_PROTEINS
                                       WP_SPINAL_CORD_INJURY, WP_SPINAL_CORD_INJURY
                                       WP_DNA_DAMAGE_RESPONSE_ONLY_ATM_DEPENDENT, WP_DNA_DAMAGE_RESPONSE_ONLY_ATM_DEPENDENT
                                       REACTOME_RECOGNITION_OF_DNA_DAMAGE_BY_PCNA_CONTAINING_REPLICATION_COMPLEX, REACTOME_RECOGNITION_OF_DNA_DAMAGE_BY_PCNA_CONTAINING_REPLICATION_COMPLEX
                                       REACTOME TRANSCRIPTIONAL REGULATION BY E2F6, REACTOME TRANSCRIPTIONAL REGULATION BY E2F6
                                       REACTOME_SIGNALING_BY_TGF_BETA_RECEPTOR_COMPLEX, REACTOME_SIGNALING_BY_TGF_BETA_RECEPTOR_COMPLEX
                                       REACTOME RESOLUTION OF ABASIC SITES AP SITES, REACTOME RESOLUTION OF ABASIC SITES AP SITES
                                        REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY, REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH_REPLACEMENT_PATHWAY
                                        REACTOME_SYNTHESIS_OF_ACTIVE_UBIQUITIN_ROLES_OF_E1_AND_E2_ENZYMES, REACTOME_SYNTHESIS_OF_ACTIVE_UBIQUITIN_ROLES_OF_E1_AND_E2_ENZYMES
                                        REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_P107_RBL1_AND_P130_RBL2_IN_COMPLEX_WITH_HDAC1,
REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_P107_RBL1_AND_P130_RBL2_IN_COMPLEX_WITH_HDAC1
                                        REACTOME_PEROXISOMAL_PROTEIN_IMPORT, REACTOME_PEROXISOMAL_PROTEIN_IMPORT
                                        REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT, REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT
                                        REACTOME_TRANSLESION_SYNTHESIS_BY_Y_FAMILY_DNA_POLYMERASES_BYPASSES_LESIONS_ON_DNA_TEMPLATE, REACTOME_TRANSLESION_SYNTHESIS_BY_Y_FAMILY_DNA_POLYMERASES_BYPASSES_LESIONS_ON_DNA_TEMPLATE
                                        REACTOME_UNWINDING_OF_DNA, REACTOME_UNWINDING_OF_DNA
                                        REACTOME_CIRCADIAN_CLOCK, REACTOME_CIRCADIAN_CLOCK
                                        WP_DNA_DAMAGE_RESPONSE, WP_DNA_DAMAGE_RESPONSE
                                        REACTOME_LAGGING_STRAND_SYNTHESIS, REACTOME_LAGGING_STRAND_SYNTHESIS
                                        REACTOME_THE_ROLE_OF_GTSE1_IN_G2_M_PROGRESSION_AFTER_G2_CHECKPOINT, REACTOME_THE_ROLE_OF_GTSE1_IN_G2_M_PROGRESSION_AFTER_G2_CHECKPOINT
                                        REACTOME_ABC_TRANSPORTER_DISORDERS, REACTOME_ABC_TRANSPORTER_DISORDERS
                                        REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS, REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS
                                        REACTOME_DISEASES_OF_MITOTIC_CELL_CYCLE, REACTOME_DISEASES_OF_MITOTIC_CELL_CYCLE
                                        REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCRT, REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCRT
                                        KEGG_CHRONIC_MYELOID_LEUKEMIA, KEGG_CHRONIC_MYELOID_LEUKEMIA
                                        REACTOME_HEDGEHOG_OFF_STATE, REACTOME_HEDGEHOG_OFF_STATE
                                        REACTOME_E2F_ENABLED_INHIBITION_OF_PRE_REPLICATION_COMPLEX_FORMATION, REACTOME_E2F_ENABLED_INHIBITION_OF_PRE_REPLICATION_COMPLEX_FORMATION
                                        REACTOME_TELOMERE_C_STRAND_LAGGING_STRAND_SYNTHESIS, REACTOME_TELOMERE_C_STRAND_LAGGING_STRAND_SYNTHESIS
                                       REACTOME_REGULATION_OF_HSF1_MEDIATED_HEAT_SHOCK_RESPONSE, REACTOME_REGULATION_OF_HSF1_MEDIATED_HEAT_SHOCK_RESPONSE
ME_S_PHASE, REACTOME_S_PHASE
                                        REACTOME_PHOSPHORYLATION_OF_THE_APC_C, REACTOME_PHOSPHORYLATION_OF_THE_APC_C
                                        REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B, REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B
                                       PID_BARD1_PATHWAY, PID_BARD1_PATHWAY
                                        PID_E2F_PATHWAY, PID_E2F_PATHWAY
                                        REACTOME_MYD88_INDEPENDENT_TLR4_CASCADE, REACTOME_MYD88_INDEPENDENT_TLR4_CASCADE
                                        REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ACETYLATION, REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ACETYLATION
                                        PID_ATR_PATHWAY, PID_ATR_PATHWAY
                                        WP_INTEGRATED_CANCER_PATHWAY, WP_INTEGRATED_CANCER_PATHWAY
                                        REACTOME_N_GLYCAN_TRIMMING_IN_THE_ER_AND_CALNEXIN_CALRETICULIN_CYCLE, REACTOME_N_GLYCAN_TRIMMING_IN_THE_ER_AND_CALNEXIN_CALRETICULIN_CYCLE
                                        REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION, REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION
                                        PID_FOXO_PATHWAY, PID_FOXO_PATHWAY
                                        REACTOME_DDX58_IFIH1_MEDIATED_INDUCTION_OF_INTERFERON_ALPHA_BETA, REACTOME_DDX58_IFIH1_MEDIATED_INDUCTION_OF_INTERFERON_ALPHA_BETA
                                        KEGG_PROGESTERONE_MEDIATED_OOCYTE_MATURATION, KEGG_PROGESTERONE_MEDIATED_OOCYTE_MATURATION
                                        KEGG_MISMATCH_REPAIR, KEGG_MISMATCH_REPAIR
                                        BIOCARTA_MCM_PATHWAY, BIOCARTA_MCM_PATHWAY
                                        WP_DNA_MISMATCH_REPAIR, WP_DNA_MISMATCH_REPAIR
                                        REACTOME_POLYMERASE_SWITCHING, REACTOME_POLYMERASE_SWITCHING
                                        REACTOME_NEGATIVE_REGULATION_OF_MAPK_PATHWAY, REACTOME_NEGATIVE_REGULATION_OF_MAPK_PATHWAY
                                        REACTOME_INHIBITION_OF_REPLICATION_INITIATION_OF_DAMAGED_DNA_BY_RB1_E2F1, REACTOME_INHIBITION_OF_REPLICATION_INITIATION_OF_DAMAGED_DNA_BY_RB1_E2F1
                                        REACTOME TRANSCRIPTIONAL REGULATION BY RUNX2, REACTOME TRANSCRIPTIONAL REGULATION BY RUNX2
                                        REACTOME_TRANSLESION_SYNTHESIS_BY_POLK, REACTOME_TRANSLESION_SYNTHESIS_BY_POLK
                                        REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A, REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A
                                        BIOCARTA_CELLCYCLE_PATHWAY, BIOCARTA_CELLCYCLE_PATHWAY
                                       REACTOME_CDC6_ASSOCIATION_WITH_THE_ORC_ORIGIN_COMPLEX, REACTOME_CDC6_ASSOCIATION_WITH_THE_ORC_ORIGIN_COMPLEX
                                        REACTOME_REGULATED_NECROSIS, REACTOME_REGULATED_NECROSIS
                                       REACTOME TERMINATION OF TRANSLESION DNA SYNTHESIS, REACTOME TERMINATION OF TRANSLESION DNA SYNTHESIS
                                       WP_DNA_IRDOUBLE_STRAND_BREAKS_DSBS_AND_CELLULAR_RESPONSE_VIA_ATM, WP_DNA_IRDOUBLE_STRAND_BREAKS_DSBS_AND_CELLULAR_RESPONSE_VIA_ATM
                                       REACTOME_BUDDING_AND_MATURATION_OF_HIV_VIRION, REACTOME_BUDDING_AND_MATURATION_OF_HIV_VIRION
                                        KEGG HOMOLOGOUS RECOMBINATION, KEGG HOMOLOGOUS RECOMBINATION
                                        REACTOME_G0_AND_EARLY_G1, REACTOME_G0_AND_EARLY_G1
                                       REACTOME TNF SIGNALING, REACTOME TNF SIGNALING
                                       WP_BASE_EXCISION_REPAIR, WP_BASE_EXCISION_REPAIR
                                        REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND, REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND
                                        REACTOME_METABOLISM_OF_POLYAMINES, REACTOME_METABOLISM_OF_POLYAMINES
                                        REACTOME_FLT3_SIGNALING_IN_DISEASE, REACTOME_FLT3_SIGNALING_IN_DISEASE
                                        REACTOME_ABERRANT_REGULATION_OF_MITOTIC_EXIT_IN_CANCER_DUE_TO_RB1_DEFECTS, REACTOME_ABERRANT_REGULATION_OF_MITOTIC_EXIT_IN_CANCER_DUE_TO_RB1_DEFECTS
                                        REACTOME_NEGATIVE_REGULATORS_OF_DDX58_IFIH1_SIGNALING, REACTOME_NEGATIVE_REGULATORS_OF_DDX58_IFIH1_SIGNALING
                                        REACTOME_SARS_COV_1_INFECTION, REACTOME_SARS_COV_1_INFECTION
                                        REACTOME_REGULATION_OF_TNFR1_SIGNALING, REACTOME_REGULATION_OF_TNFR1_SIGNALING
                                        REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_DREAM_COMPLEX, REACTOME_TRANSCRIPTION_OF_E2F_TARGETS_UNDER_NEGATIVE_CONTROL_BY_DREAM_COMPLEX
                                       WP_RESISTIN_AS_A_REGULATOR_OF_INFLAMMATION, WP_RESISTIN_AS_A_REGULATOR_OF_INFLAMMATION
                                        WP_SIGNALING_PATHWAYS_IN_GLIOBLASTOMA, WP_SIGNALING_PATHWAYS_IN_GLIOBLASTOMA
                                        REACTOME TNFR1 INDUCED NFKAPPAB SIGNALING PATHWAY, REACTOME TNFR1 INDUCED NFKAPPAB SIGNALING PATHWAY
                                        BIOCARTA_PROTEASOME_PATHWAY, BIOCARTA_PROTEASOME_PATHWAY
                                        REACTOME FLT3 SIGNALING, REACTOME FLT3 SIGNALING
                                        REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_IN_LATE_ANAPHASE, REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_IN_LATE_ANAPHASE
                                        REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS, REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS
                                        REACTOME_PCNA_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR, REACTOME_PCNA_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR
                                        SIG_BCR_SIGNALING_PATHWAY, SIG_BCR_SIGNALING_PATHWAY
                                       REACTOME_GAP_FILLING_DNA_REPAIR_SYNTHESIS_AND_LIGATION_IN_GG_NER, REACTOME_GAP_FILLING_DNA_REPAIR_SYNTHESIS_AND_LIGATION_IN_GG_NER
                                        REACTOME_JNK_C_JUN_KINASES_PHOSPHORYLATION_AND_ACTIVATION_MEDIATED_BY_ACTIVATED_HUMAN_TAK1, REACTOME_JNK_C_JUN_KINASES_PHOSPHORYLATION_AND_ACTIVATION_MEDIATED_BY_ACTIVATED_HUMAN_TAK1
                                        REACTOME_TOLL_LIKE_RECEPTOR_9_TLR9_CASCADE, REACTOME_TOLL_LIKE_RECEPTOR_9_TLR9_CASCADE
                                        KEGG_P53_SIGNALING_PATHWAY, KEGG_P53_SIGNALING_PATHWAY
                                        WP_CHROMOSOMAL_AND_MICROSATELLITE_INSTABILITY_IN_COLORECTAL_CANCER, WP_CHROMOSOMAL_AND_MICROSATELLITE_INSTABILITY_IN_COLORECTAL_CANCER
                                        REACTOME_REGULATION_OF_TP53_EXPRESSION_AND_DEGRADATION, REACTOME_REGULATION_OF_TP53_EXPRESSION_AND_DEGRADATION
                                        PID_MYC_PATHWAY, PID_MYC_PATHWAY
                                        REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPITHELIAL_TO_MESENCHYMAL_TRANSITION, REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPITHELIAL_TO_MESENCHYMAL_TRANSITION
                                        PID_ATM_PATHWAY, PID_ATM_PATHWAY
                                        REACTOME_SIGNALING_BY_CSF3_G_CSF, REACTOME_SIGNALING_BY_CSF3_G_CSF
                                        KEGG_ERBB_SIGNALING_PATHWAY, KEGG_ERBB_SIGNALING_PATHWAY
                                        REACTOME_RESPONSE_OF_MTB_TO_PHAGOCYTOSIS, REACTOME_RESPONSE_OF_MTB_TO_PHAGOCYTOSIS
                                        REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_METHYLATION, REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_METHYLATION
                                        REACTOME_RIPK1_MEDIATED_REGULATED_NECROSIS, REACTOME_RIPK1_MEDIATED_REGULATED_NECROSIS
                                        REACTOME_TICAM1_RIP1_MEDIATED_IKK_COMPLEX_RECRUITMENT, REACTOME_TICAM1_RIP1_MEDIATED_IKK_COMPLEX_RECRUITMENT
                                        REACTOME DNA REPLICATION INITIATION, REACTOME DNA REPLICATION INITIATION
                                        KEGG_ACUTE_MYELOID_LEUKEMIA, KEGG_ACUTE_MYELOID_LEUKEMIA
                                        REACTOME POLYMERASE SWITCHING ON THE C STRAND OF THE TELOMERE, REACTOME POLYMERASE SWITCHING ON THE C STRAND OF THE TELOMERE
                                       WP_REGULATION_OF_SISTER_CHROMATID_SEPARATION_AT_THE_METAPHASEANAPHASE_TRANSITION, WP_REGULATION_OF_SISTER_CHROMATID_SEPARATION_AT_THE_METAPHASEANAPHASE_TRANSITION
                                       WP_ERBB_SIGNALING_PATHWAY, WP_ERBB_SIGNALING_PATHWAY
                                       REACTOME_CYCLIN_D_ASSOCIATED_EVENTS_IN_G1, REACTOME_CYCLIN_D_ASSOCIATED_EVENTS_IN_G1
                                       PID_AURORA_A_PATHWAY, PID_AURORA_A_PATHWAY
                                       REACTOME_TRANSLATION_OF_SARS_COV_1_STRUCTURAL_PROTEINS, REACTOME_TRANSLATION_OF_SARS_COV_1_STRUCTURAL_PROTEINS
                                        REACTOME_GLYCOGEN_SYNTHESIS, REACTOME_GLYCOGEN_SYNTHESIS
                                       PID_P73PATHWAY, PID_P73PATHWAY
                                       WP_GASTRIC_CANCER_NETWORK_2, WP_GASTRIC_CANCER_NETWORK_2
                                        KEGG_COLORECTAL_CANCER, KEGG_COLORECTAL_CANCER
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REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT_COMPONENTS, REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_THE_ONSET_OF_ANAPHASE_BY_MITOTIC_SPINDLE_CHECKPOINT REACTOME_SUPPRESSION_OF_PHAGOSOMAL_MATURATION, REACTOME_SUPPRESSION_OF_PHAGOSOMAL_MATURATION WP_GASTRIC_CANCER_NETWORK_1, WP_GASTRIC_CANCER_NETWORK_1 BIOCARTA_ETS_PATHWAY, BIOCARTA_ETS_PATHWAY WP_INTEGRATED_BREAST_CANCER_PATHWAY, WP_INTEGRATED_BREAST_CANCER_PATHWAY REACTOME TRANSLESION SYNTHESIS BY POLH, REACTOME TRANSLESION SYNTHESIS BY POLH REACTOME ER QUALITY CONTROL COMPARTMENT ERQC, REACTOME ER QUALITY CONTROL COMPARTMENT ERQC REACTOME_ACTIVATED_NOTCH1_TRANSMITS_SIGNAL_TO_THE_NUCLEUS, REACTOME_ACTIVATED_NOTCH1_TRANSMITS_SIGNAL_TO_THE_NUCLEUS REACTOME_SIGNALING_BY_NOTCH1, REACTOME_SIGNALING_BY_NOTCH1 REACTOME INACTIVATION OF CSF3 G CSF SIGNALING, REACTOME INACTIVATION OF CSF3 G CSF SIGNALING REACTOME_POLB_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR, REACTOME_POLB_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR REACTOME_INTERLEUKIN_1_FAMILY_SIGNALING, REACTOME_INTERLEUKIN_1_FAMILY_SIGNALING BIOCARTA RACCYCD PATHWAY, BIOCARTA RACCYCD PATHWAY PID_HEDGEHOG_GLI_PATHWAY, PID_HEDGEHOG_GLI_PATHWAY REACTOME ALPHA PROTEIN KINASE 1 SIGNALING PATHWAY, REACTOME ALPHA PROTEIN KINASE 1 SIGNALING PATHWAY WP_EGFR_TYROSINE_KINASE_INHIBITOR_RESISTANCE, WP_EGFR_TYROSINE_KINASE_INHIBITOR_RESISTANCE REACTOME_MITOPHAGY, REACTOME_MITOPHAGY PID_PI3KCI_AKT_PATHWAY, PID_PI3KCI_AKT_PATHWAY REACTOME_TCR_SIGNALING, REACTOME_TCR_SIGNALING REACTOME_CALNEXIN_CALRETICULIN_CYCLE, REACTOME_CALNEXIN_CALRETICULIN_CYCLE BIOCARTA_P53HYPOXIA_PATHWAY, BIOCARTA_P53HYPOXIA_PATHWAY REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM_CSF_SIGNALING, REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM_CSF_SIGNALING REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GENES, REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GENES REACTOME_SIGNALING_BY_NOTCH1_PEST_DOMAIN_MUTANTS_IN_CANCER, REACTOME_SIGNALING_BY_NOTCH1_PEST_DOMAIN_MUTANTS_IN_CANCER REACTOME_ASSEMBLY_OF_THE_HIV_VIRION, REACTOME_ASSEMBLY_OF_THE_HIV_VIRION BIOCARTA_P53_PATHWAY, BIOCARTA_P53_PATHWAY PID_TELOMERASE_PATHWAY, PID_TELOMERASE_PATHWAY REACTOME_ESTABLISHMENT_OF_SISTER_CHROMATID_COHESION, REACTOME_ESTABLISHMENT_OF_SISTER_CHROMATID_COHESION REACTOME_PEXOPHAGY, REACTOME_PEXOPHAGY WP_ATM_SIGNALING_PATHWAY, WP_ATM_SIGNALING_PATHWAY REACTOME_TGF_BETA_RECEPTOR_SIGNALING_ACTIVATES_SMADS, REACTOME_TGF_BETA_RECEPTOR_SIGNALING_ACTIVATES_SMADS WP_NUCLEOTIDE_METABOLISM, WP_NUCLEOTIDE_METABOLISM REACTOME_ACTIVATION_OF_BH3_ONLY_PROTEINS, REACTOME_ACTIVATION_OF_BH3_ONLY_PROTEINS

REACTOME_NUCLEOTIDE_BINDING_DOMAIN_LEUCINE_RICH_REPEAT_CONTAINING_RECEPTOR_NLR_SIGNALING_PATHWAYS, REACTOME_NUCLEOTIDE_BINDING_DOMAIN_LEUCINE_RICH_REPEAT_CONTAINING_RECEPTOR_NLR_SIGNALING_PATHWAYS

REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRIMER, REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRIMER KEGG_GLIOMA, KEGG_GLIOMA REACTOME_DOWNREGULATION_OF_SMAD2_3_SMAD4_TRANSCRIPTIONAL_ACTIVITY, REACTOME_DOWNREGULATION_OF_SMAD2_3_SMAD4_TRANSCRIPTIONAL_ACTIVITY REACTOME_MAP3K8_TPL2_DEPENDENT_MAPK1_3_ACTIVATION, REACTOME_MAP3K8_TPL2_DEPENDENT_MAPK1_3_ACTIVATION

REACTOME_ACTIVATION_OF_PUMA_AND_TRANSLOCATION_TO_MITOCHONDRIA, REACTOME_ACTIVATION_OF_PUMA_AND_TRANSLOCATION_TO_MITOCHONDRIA

REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G2_CELL_CYCLE_ARREST, REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G2_CELL_CYCLE_ARREST

REACTOME_MITOTIC_TELOPHASE_CYTOKINESIS, REACTOME_MITOTIC_TELOPHASE_CYTOKINESIS

REACTOME_GLYCOGEN_STORAGE_DISEASES, REACTOME_GLYCOGEN_STORAGE_DISEASES

REACTOME_RAS_PROCESSING, REACTOME_RAS_PROCESSING

WP_IL5_SIGNALING_PATHWAY, WP_IL5_SIGNALING_PATHWAY

PID_RETINOIC_ACID_PATHWAY, PID_RETINOIC_ACID_PATHWAY

KEGG_PANCREATIC_CANCER, KEGG_PANCREATIC_CANCER

KEGG_PROSTATE_CANCER, KEGG_PROSTATE_CANCER

BIOCARTA G2 PATHWAY, BIOCARTA G2 PATHWAY

SIG_CHEMOTAXIS, SIG_CHEMOTAXIS

PID_BETA_CATENIN_DEG_PATHWAY, PID_BETA_CATENIN_DEG_PATHWAY

REACTOME_GLYCOGEN_METABOLISM, REACTOME_GLYCOGEN_METABOLISM

WP_PRADERWILLI_AND_ANGELMAN_SYNDROME, WP_PRADERWILLI_AND_ANGELMAN_SYNDROME

WP_ANDROGEN_RECEPTOR_SIGNALING_PATHWAY, WP_ANDROGEN_RECEPTOR_SIGNALING_PATHWAY

REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_CYTOSOL, REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_CYTOSOL

REACTOME_PREVENTION_OF_PHAGOSOMAL_LYSOSOMAL_FUSION, REACTOME_PREVENTION_OF_PHAGOSOMAL_LYSOSOMAL_FUSION

REACTOME_DOWNREGULATION_OF_TGF_BETA_RECEPTOR_SIGNALING, REACTOME_DOWNREGULATION_OF_TGF_BETA_RECEPTOR_SIGNALING

REACTOME_TICAM1_TRAF6_DEPENDENT_INDUCTION_OF_TAK1_COMPLEX, REACTOME_TICAM1_TRAF6_DEPENDENT_INDUCTION_OF_TAK1_COMPLEX

WP_PARKINUBIQUITIN_PROTEASOMAL_SYSTEM_PATHWAY, WP_PARKINUBIQUITIN_PROTEASOMAL_SYSTEM_PATHWAY

WP_AMPACTIVATED_PROTEIN_KINASE_AMPK_SIGNALING, WP_AMPACTIVATED_PROTEIN_KINASE_AMPK_SIGNALING

REACTOME_TICAM1_DEPENDENT_ACTIVATION_OF_IRF3_IRF7, REACTOME_TICAM1_DEPENDENT_ACTIVATION_OF_IRF3_IRF7