

Names	total	elements
DIO ND	239	<p>PTEN Regulation</p> <p>p53-Dependent G1 DNA Damage Response</p> <p>Chaperonin-mediated protein folding</p> <p>SUMOylation of DNA replication proteins</p> <p>Vpu mediated degradation of CD4</p> <p>Nonsense Mediated Decay (NMD) independent of the Exon Junction Complex (EJC)</p> <p>Processing of Capped Intron-Containing Pre-mRNA</p> <p>Nuclear import of Rev protein</p> <p>Macroautophagy</p> <p>HSF1 activation</p> <p>Clathrin-mediated endocytosis</p> <p>Switching of origins to a post-replicative state</p> <p>Late Phase of HIV Life Cycle</p> <p>Response of EIF2AK4 (GCN2) to amino acid deficiency</p> <p>ISG15 antiviral mechanism</p> <p>Dectin-1 mediated noncanonical NF-kB signaling</p> <p>Translation</p> <p>COP1-independent Golgi-to-ER retrograde traffic</p> <p>G2/M Transition</p> <p>Interactions of Rev with host cellular proteins</p> <p>Autodegradation of the E3 ubiquitin ligase COP1</p> <p>Vpr-mediated nuclear import of PICs</p> <p>NIK->noncanonical NF-kB signaling</p> <p>RNA Polymerase II Transcription Termination</p> <p>S Phase</p> <p>Transport of Mature mRNA derived from an Intron-Containing Transcript</p> <p>Cyclin A:Cdk2-associated events at S phase entry</p> <p>Nuclear Pore Complex (NPC) Disassembly</p> <p>Cellular responses to stress</p> <p>Folding of actin by CCT/TriC</p> <p>Regulation of APC/C activators between G1/S and early anaphase</p> <p>Attenuation phase</p> <p>Signaling by NOTCH4</p> <p>APC/C-mediated degradation of cell cycle proteins</p> <p>Cdc20:Phospho-APC/C mediated degradation of Cyclin A</p> <p>Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins</p> <p>Hedgehog 'off' state</p> <p>UCH proteinases</p> <p>p53-Independent DNA Damage Response</p> <p>Cellular response to heat stress</p> <p>Nonsense Mediated Decay (NMD) enhanced by the Exon Junction Complex (EJC)</p> <p>Neutrophil degranulation</p> <p>Gene and protein expression by JAK-STAT signaling after Interleukin-12 stimulation</p> <p>Transport of the SLBP independent Mature mRNA</p> <p>Nuclear Envelope (NE) Reassembly</p> <p>Degradation of GLI2 by the proteasome</p> <p>Transport of Mature mRNAs Derived from Intronless Transcripts</p> <p>Ub-specific processing proteases</p> <p>Apoptosis induced DNA fragmentation</p> <p>Regulation of RUNX2 expression and activity</p> <p>Mitotic Prometaphase</p> <p>Translocation of SLC2A4 (GLUT4) to the plasma membrane</p> <p>RUNX1 regulates transcription of genes involved in differentiation of HSCs</p> <p>APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint</p> <p>Metabolism of RNA</p> <p>Membrane Trafficking</p> <p>p53-Independent G1/S DNA damage checkpoint</p> <p>Degradation of beta-catenin by the destruction complex</p> <p>Regulation of Apoptosis</p> <p>Glycolysis</p> <p>Apoptosis</p> <p>Vesicle-mediated transport</p> <p>Interactions of Vpr with host cellular proteins</p> <p>Transport of Ribonucleoproteins into the Host Nucleus</p> <p>ABC-family proteins mediated transport</p> <p>SUMOylation of SUMOylation proteins</p> <p>APC/C:Cdc20 mediated degradation of mitotic proteins</p> <p>Signaling by Hedgehog</p> <p>Cross-presentation of soluble exogenous antigens (endosomes)</p> <p>CLEC7A (Dectin-1) signaling</p> <p>Hedgehog 'on' state</p> <p>Transport to the Golgi and subsequent modification</p> <p>p53-Dependent G1/S DNA damage checkpoint</p> <p>TCR signaling</p> <p>CDT1 association with the CDC6:ORC:origin complex</p> <p>Hh mutants that don't undergo autocatalytic processing are degraded by ERAD</p> <p>Assembly of the pre-replicative complex</p> <p>APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1</p> <p>Aggrephagy</p> <p>Hh mutants abrogate ligand secretion</p> <p>DNA Replication Pre-Initiation</p> <p>Regulation of ornithine decarboxylase (ODC)</p> <p>XBP1(S) activates chaperone genes</p> <p>Defective CFTR causes cystic fibrosis</p> <p>Mitochondrial protein import</p> <p>SUMOylation of chromatin organization proteins</p> <p>Autophagy</p> <p>Metabolism of polyamines</p> <p>Orc1 removal from chromatin</p> <p>M Phase</p> <p>MHC class II antigen presentation</p> <p>mRNA Splicing - Major Pathway</p> <p>Metabolism of proteins</p> <p>Regulation of PTEN stability and activity</p> <p>trans-Golgi Network Vesicle Budding</p> <p>Major pathway of rRNA processing in the nucleolus and cytosol</p> <p>FGFR2 alternative splicing</p> <p>Separation of Sister Chromatids</p> <p>Vif-mediated degradation of APOBEC3G</p> <p>Selenocysteine synthesis</p> <p>Negative regulation of NOTCH4 signaling</p> <p>Prefoldin mediated transfer of substrate to CCT/TriC</p> <p>Host Interactions of HIV factors</p> <p>RHO GTPases Activate WASPs and WAVes</p> <p>Viral Messenger RNA Synthesis</p> <p>Transcriptional regulation by RUNX3</p> <p>rRNA processing</p> <p>Downstream TCR signaling</p> <p>Unfolded Protein Response (UPR)</p> <p>DNA Replication</p> <p>Complex I biogenesis</p> <p>Eukaryotic Translation Termination</p> <p>Nervous system development</p> <p>Interleukin-1 signaling</p> <p>Antiviral mechanism by IFN-stimulated genes</p> <p>Regulation of HSF1-mediated heat shock response</p> <p>Cytosolic tRNA aminoacylation</p> <p>G1/S DNA Damage Checkpoints</p> <p>Activation upon binding of the cap-binding complex and eIFs, and subsequent binding to 43S</p> <p>Rev-mediated nuclear export of HIV RNA</p> <p>ER to Golgi Anterograde Transport</p> <p>Stabilization of p53</p> <p>Eukaryotic Translation Elongation</p> <p>CDK-mediated phosphorylation and removal of Cdc6</p> <p>PCP/CE pathway</p> <p>Mitotic G2-G2/M phases</p> <p>Axon guidance</p> <p>Post-chaperonin tubulin folding pathway</p> <p>HSF1-dependent transactivation</p> <p>Degradation of AXIN</p> <p>Regulation of mitotic cell cycle</p> <p>The citric acid (TCA) cycle and respiratory electron transport</p> <p>Nuclear Envelope Breakdown</p> <p>Programmed Cell Death</p> <p>NS1 Mediated Effects on Host Pathways</p> <p>RHO GTPases Activate Formins</p> <p>HIV Life Cycle</p> <p>Influenza Infection</p> <p>L13a-mediated translational silencing of Ceruloplasmin expression</p> <p>Beta-catenin independent WNT signaling</p> <p>Peptide chain elongation</p> <p>GLI3 is processed to GLI3R by the proteasome</p> <p>Metabolism of non-coding RNA</p> <p>Translation initiation complex formation</p> <p>Viral mRNA Translation</p> <p>SCF(Skp2)-mediated degradation of p27/p21</p> <p>Activation of NF-kappaB in B cells</p> <p>snRNP Assembly</p> <p>Mitotic Prophase</p> <p>Oxygen-dependent proline hydroxylation of Hypoxia-inducible Factor Alpha</p> <p>Cristae formation</p> <p>COP1-mediated anterograde transport</p> <p>Protein folding</p> <p>Signaling by ROBO receptors</p> <p>Selenoamino acid metabolism</p> <p>Eukaryotic Translation Initiation</p> <p>NEP/NS2 Interacts with the Cellular Export Machinery</p> <p>Cap-dependent Translation Initiation</p> <p>Transport of the SLBP Dependant Mature mRNA</p> <p>ABC transporter disorders</p> <p>IRE1alpha activates chaperones</p> <p>Mitotic Anaphase</p> <p>Protein localization</p> <p>SUMOylation of RNA binding proteins</p> <p>Golgi Associated Vesicle Biogenesis</p> <p>Selective autophagy</p> <p>Regulation of Glucokinase by Glucokinase Regulatory Protein</p> <p>Cell-extracellular matrix interactions</p> <p>HIV Infection</p> <p>HSP90 chaperone cycle for steroid hormone receptors (SHR)</p> <p>Signaling by Interleukins</p> <p>Interleukin-12 family signaling</p> <p>G1/S Transition</p> <p>APC/C:Cdc20 mediated degradation of Securin</p> <p>Transcriptional regulation by small RNAs</p> <p>Ubiquitin-dependent degradation of Cyclin D</p> <p>SRP-dependent cotranslational protein targeting to membrane</p> <p>Golgi-to-ER retrograde transport</p> <p>Postmitotic nuclear pore complex (NPC) reformation</p> <p>L1CAM interactions</p> <p>Cell Cycle Checkpoints</p> <p>Asymmetric localization of PCP proteins</p> <p>G2/M Checkpoints</p> <p>Respiratory electron transport</p> <p>Cellular responses to external stimuli</p> <p>Degradation of DVL</p> <p>Ribosomal scanning and start codon recognition</p> <p>Glucose metabolism</p> <p>Hedgehog ligand biogenesis</p> <p>RHO GTPase Effectors</p> <p>Transport of Mature Transcript to Cytoplasm</p> <p>Autodegradation of Cdh1 by Cdh1:APC/C</p> <p>Synthesis of DNA</p> <p>Respiratory electron transport, ATP synthesis by chemiosmotic coupling, and heat production by uncoupling proteins.</p> <p>mRNA Splicing - Minor Pathway</p> <p>Cellular response to hypoxia</p> <p>Downstream signaling events of B Cell Receptor (BCR)</p> <p>COP1-dependent Golgi-to-ER retrograde traffic</p> <p>rRNA processing in the nucleus and cytosol</p> <p>Transcriptional regulation by RUNX2</p> <p>Metabolism of amino acids and derivatives</p> <p>Export of Viral Ribonucleoproteins from Nucleus</p> <p>TNFR2 non-canonical NF-kB pathway</p> <p>Interleukin-12 signaling</p> <p>Deubiquitination</p> <p>Formation of the ternary complex, and subsequently, the 43S complex</p> <p>Regulation of mRNA stability by proteins that bind AU-rich elements</p> <p>Influenza Viral RNA Transcription and Replication</p> <p>Asparagine N-linked glycosylation</p> <p>Cyclin E associated events during G1/S transition</p> <p>Gene Silencing by RNA</p> <p>MAPK6/MAPK4 signaling</p> <p>Regulation of activated PAK-2p34 by proteasome mediated degradation</p> <p>Mitotic G1 phase and G1/S transition</p> <p>Cell Cycle</p> <p>Mitotic Metaphase and Anaphase</p> <p>Cooperation of Prefoldin and TriC/CCT in actin and tubulin folding</p> <p>mRNA Splicing</p> <p>Formation of a pool of free 40S subunits</p> <p>Ubiquitin Mediated Degradation of Phosphorylated Cdc25A</p> <p>Intra-Golgi and retrograde Golgi-to-ER traffic</p> <p>Regulation of RUNX3 expression and activity</p> <p>mRNA 3'-end processing</p> <p>Formation of tubulin folding intermediates by CCT/TriC</p> <p>tRNA processing in the nucleus</p> <p>Transport of Mature mRNA Derived from an Intronless Transcript</p> <p>GTP hydrolysis and joining of the 60S ribosomal subunit</p> <p>SUMOylation of ubiquitylation proteins</p> <p>Degradation of GLI1 by the proteasome</p> <p>Defective TPR may confer susceptibility towards thyroid papillary carcinoma (TPC)</p> <p>Nonsense-Mediated Decay (NMD)</p> <p>The role of GTSE1 in G2/M progression after G2 checkpoint</p> <p>SCF-beta-TrCP mediated degradation of Emi1</p> <p>FBXL7 down-regulates AURKA during mitotic entry and in early mitosis</p> <p>Recycling pathway of L1</p> <p>Cell Cycle, Mitotic</p> <p>AUF1 (hnRNP D0) binds and destabilizes mRNA</p> <p>Regulation of RAS by GAPs</p> <p>Regulation of expression of SLITs and ROBOs</p>
ND	19	<p>Resolution of Sister Chromatid Cohesion</p> <p>Platelet degranulation</p> <p>Signal transduction by L1</p> <p>COP1-mediated vesicle transport</p> <p>Mitochondrial translation elongation</p> <p>Response to elevated platelet cytosolic Ca2+</p> <p>Synthesis of active ubiquitin: roles of E1 and E2 enzymes</p> <p>Formation of TC-NER Pre-Initiation Complex</p> <p>RHO GTPases activate KTN1</p> <p>RHO GTPases activate CIT</p> <p>Amplification of signal from unattached kinetochores via a MAD2 inhibitory signal</p> <p>Signaling by Rho GTPases</p> <p>Amplification of signal from the kinetochores</p> <p>Neddylolation</p> <p>RHO GTPases Activate ROCKs</p> <p>EML4 and NUDC in mitotic spindle formation</p> <p>Mitochondrial translation</p> <p>Mitochondrial translation initiation</p> <p>Mitochondrial translation termination</p>
DIO	17	<p>AURKA Activation by TPX2</p> <p>SUMOylation of DNA damage response and repair proteins</p> <p>Intracellular signaling by second messengers</p> <p>Apoptotic execution phase</p> <p>Cargo recognition for clathrin-mediated endocytosis</p> <p>Infectious disease</p> <p>Signaling by WNT</p> <p>MAPK family signaling cascades</p> <p>Processing of Capped Intronless Pre-mRNA</p> <p>Interleukin-1 family signaling</p> <p>tRNA Aminoacylation</p> <p>Signaling by MET</p> <p>Signaling by FGFR2</p> <p>Signaling by BRAF and RAF fusions</p> <p>TCF dependent signaling in response to WNT</p> <p>Regulation of PLK1 Activity at G2/M Transition</p> <p>PIP3 activates AKT signaling</p>

Names	total	elements		
DIO ND	232	<p>PTEN Regulation</p> <p>p53-Dependent G1 DNA Damage Response</p> <p>Chaperonin-mediated protein folding</p> <p>Transcriptional regulation by RUNX1</p> <p>Vpu mediated degradation of CD4</p> <p>Nonsense Mediated Decay (NMD) independent of the Exon Junction Complex (EJC)</p> <p>Antigen processing-Cross presentation</p> <p>Extracellular matrix organization</p> <p>MET promotes cell motility</p> <p>MET activates PTK2 signaling</p> <p>Switching of origins to a post-replicative state</p> <p>Collagen formation</p> <p>Innate Immune System</p> <p>Response of EIF2AK4 (GCN2) to amino acid deficiency</p> <p>Dectin-1 mediated noncanonical NF-kB signaling</p> <p>Translation</p> <p>COPI-independent Golgi-to-ER retrograde traffic</p> <p>G2/M Transition</p> <p>Platelet degranulation</p> <p>Autodegradation of the E3 ubiquitin ligase COP1</p> <p>NIK-->noncanonical NF-kB signaling</p> <p>Smooth Muscle Contraction</p> <p>S Phase</p> <p>Cyclin A:Cdk2-associated events at S phase entry</p> <p>Non-integrin membrane-ECM interactions</p> <p>Cellular responses to stress</p> <p>Folding of actin by CCT/TriC</p> <p>Regulation of APC/C activators between G1/S and early anaphase</p> <p>Signaling by NOTCH4</p> <p>APC/C-mediated degradation of cell cycle proteins</p> <p>Cdc20:Phospho-APC/C mediated degradation of Cyclin A</p> <p>Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins</p> <p>Hedgehog 'off' state</p> <p>UCH proteinases</p> <p>Syndecan interactions</p> <p>p53-Independent DNA Damage Response</p> <p>RHO GTPases activate PAKs</p> <p>Signaling by NOTCH</p> <p>Nonsense Mediated Decay (NMD) enhanced by the Exon Junction Complex (EJC)</p> <p>Neutrophil degranulation</p> <p>EPH-Ephrin signaling</p> <p>Gene and protein expression by JAK-STAT signaling after Interleukin-12 stimulation</p> <p>Nuclear Envelope (NE) Reassembly</p> <p>Degradation of GLI2 by the proteasome</p> <p>Fc epsilon receptor (FCER1) signaling</p> <p>Ub-specific processing proteases</p> <p>Regulation of RUNX2 expression and activity</p> <p>Response to elevated platelet cytosolic Ca2+</p> <p>Translocation of SLC2A4 (GLUT4) to the plasma membrane</p> <p>RUNX1 regulates transcription of genes involved in differentiation of HSCs</p> <p>APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint</p> <p>Metabolism of RNA</p> <p>p53-Independent G1/S DNA damage checkpoint</p> <p>Degradation of beta-catenin by the destruction complex</p> <p>Regulation of Apoptosis</p> <p>Apoptosis</p> <p>Disease</p> <p>Post-translational protein modification</p> <p>ABC-family proteins mediated transport</p> <p>APC/C:Cdc20 mediated degradation of mitotic proteins</p> <p>Collagen biosynthesis and modifying enzymes</p> <p>Signaling by Hedgehog</p> <p>Cross-presentation of soluble exogenous antigens (endosomes)</p> <p>CLECK7A (Dectin-1) signaling</p> <p>Hedgehog 'on' state</p> <p>p53-Dependent G1/S DNA damage checkpoint</p> <p>TCR signaling</p> <p>CDT1 association with the CDC6:ORC:origin complex</p> <p>Cytokine Signaling in Immune system</p> <p>Signaling by the B Cell Receptor (BCR)</p> <p>Hh mutants that don't undergo autocatalytic processing are degraded by ERAD</p> <p>Assembly of the pre-replicative complex</p> <p>ER-Phagosome pathway</p> <p>APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1</p> <p>Infectious disease</p> <p>Post-translational protein phosphorylation</p> <p>Aggrephagy</p> <p>Hh mutants abrogate ligand secretion</p> <p>DNA Replication Pre-Initiation</p> <p>XBP1(S) activates chaperone genes</p> <p>Regulation of ornithine decarboxylase (ODC)</p> <p>Defective CFTR causes cystic fibrosis</p> <p>Antigen processing: Ubiquitination & Proteasome degradation</p> <p>Signaling by WNT</p> <p>Orc1 removal from chromatin</p> <p>Metabolism of polyamines</p> <p>Assembly of collagen fibrils and other multimeric structures</p> <p>MAPK family signaling cascades</p> <p>M Phase</p> <p>MHC class II antigen presentation</p> <p>Metabolism of proteins</p> <p>Regulation of PTEN stability and activity</p> <p>Transport of connexons to the plasma membrane</p> <p>Major pathway of rRNA processing in the nucleolus and cytosol</p> <p>Developmental Biology</p> <p>Vif-mediated degradation of APOBEC3G</p> <p>Separation of Sister Chromatids</p> <p>Interleukin-1 family signaling</p> <p>Selenocysteine synthesis</p> <p>Negative regulation of NOTCH4 signaling</p> <p>Prefoldin mediated transfer of substrate to CCT/TriC</p> <p>Host Interactions of HIV factors</p> <p>C-type lectin receptors (CLRs)</p> <p>RHO GTPases Activate WASPs and WAVES</p> <p>Transcriptional regulation by RUNX3</p> <p>Regulation of Insulin-like Growth Factor (IGF) transport and uptake by Insulin-like Growth Factor Binding Proteins (IGFBPs)</p> <p>rRNA processing</p> <p>NCAM1 interactions</p> <p>Downstream TCR signaling</p> <p>Unfolded Protein Response (UPR)</p> <p>Microtubule-dependent trafficking of connexons from Golgi to the plasma membrane</p> <p>DNA Replication</p> <p>Eukaryotic Translation Termination</p> <p>Elastic fibre formation</p> <p>Nervous system development</p> <p>Interleukin-1 signaling</p> <p>Cytosolic tRNA aminoacylation</p> <p>G1/S DNA Damage Checkpoints</p> <p>Activation of the mRNA upon binding of the cap-binding complex and eIFs, and subsequent binding to 43S</p> <p>Recruitment of NuMA to mitotic centrosomes</p> <p>Degradation of the extracellular matrix</p> <p>Stabilization of p53</p> <p>Eukaryotic Translation Elongation</p> <p>CDK-mediated phosphorylation and removal of Cdc6</p> <p>PCP/CE pathway</p> <p>Mitotic G2-G2/M phases</p> <p>Axon guidance</p> <p>Post-chaperonin tubulin folding pathway</p> <p>tRNA Aminoacylation</p> <p>Degradation of AXIN</p> <p>Regulation of mitotic cell cycle</p> <p>Platelet activation, signaling and aggregation</p> <p>Signaling by Rho GTPases</p> <p>Programmed Cell Death</p> <p>Semaphorin interactions</p> <p>RHO GTPases Activate Formins</p> <p>Interleukin-4 and Interleukin-13 signaling</p> <p>Influenza infection</p> <p>L13a-mediated translational silencing of Ceruloplasmin expression</p> <p>Beta-catenin independent WNT signaling</p> <p>Peptide chain elongation</p> <p>RAF/MAP kinase cascade</p> <p>GLI3 is processed to GLI3R by the proteasome</p> <p>Signaling by Receptor Tyrosine Kinases</p> <p>Translation initiation complex formation</p> <p>Viral mRNA Translation</p> <p>SCF(Skp2)-mediated degradation of p27/p21</p> <p>Laminin interactions</p> <p>Activation of NF-kappaB in B cells</p> <p>Anchoring fibril formation</p> <p>MAPK1/MAPK3 signaling</p> <p>FLT3 Signaling</p> <p>Oxygen-dependent proline hydroxylation of Hypoxia-inducible Factor Alpha</p> <p>Dissolution of Fibrin Clot</p> <p>Protein folding</p> <p>COPI-mediated anterograde transport</p> <p>Signaling by ROBO receptors</p> <p>Selenoamino acid metabolism</p> <p>Eukaryotic Translation Initiation</p> <p>Cap-dependent Translation Initiation</p> <p>RHO GTPases activate IQGAPs</p> <p>ABC transporter disorders</p> <p>IRE1alpha activates chaperones</p> <p>Mitotic Anaphase</p> <p>Selective autophagy</p> <p>Cell-extracellular matrix interactions</p> <p>HIV Infection</p> <p>HSP90 chaperone cycle for steroid hormone receptors (SHR)</p> <p>Signaling by Interleukins</p> <p>Interleukin-12 family signaling</p> <p>G1/S Transition</p> <p>APC/C:Cdc20 mediated degradation of Securin</p> <p>Ubiquitin-dependent degradation of Cyclin D</p> <p>SRP-dependent cotranslational protein targeting to membrane</p> <p>Golgi-to-ER retrograde transport</p> <p>L1CAM interactions</p> <p>Cell Cycle Checkpoints</p> <p>Neddylaton</p> <p>Asymmetric localization of PCP proteins</p> <p>G2/M Checkpoints</p> <p>Cellular responses to external stimuli</p> <p>Degradation of DVL</p> <p>Ribosomal scanning and start codon recognition</p> <p>Hedgehog ligand biogenesis</p> <p>RHO GTPase Effectors</p> <p>Autodegradation of Cdh1 by Cdh1:APC/C</p> <p>Synthesis of DNA</p> <p>Cellular response to hypoxia</p> <p>Crosslinking of collagen fibrils</p> <p>Association of TriC/CCT with target proteins during biosynthesis</p> <p>Downstream signaling events of B Cell Receptor (BCR)</p> <p>rRNA processing in the nucleus and cytosol</p> <p>Transcriptional regulation by RUNX2</p> <p>Metabolism of amino acids and derivatives</p> <p>TNFR2 non-canonical NF-kB pathway</p> <p>Molecules associated with elastic fibres</p> <p>Interleukin-12 signaling</p> <p>Deubiquitination</p> <p>Formation of the ternary complex, and subsequently, the 43S complex</p> <p>Influenza Viral RNA Transcription and Replication</p> <p>Regulation of mRNA stability by proteins that bind AU-rich elements</p> <p>EPHB-mediated forward signaling</p> <p>Cyclin E associated events during G1/S transition</p> <p>Collagen degradation</p> <p>ECM proteoglycans</p> <p>TCF dependent signaling in response to WNT</p> <p>MAPK6/MAPK4 signaling</p> <p>Regulation of activated PAK-2p34 by proteasome mediated degradation</p> <p>Mitotic G1 phase and G1/S transition</p> <p>FCER1 mediated NF-kB activation</p> <p>Cell Cycle</p> <p>Mitotic Metaphase and Anaphase</p> <p>Cooperation of Prefoldin and TriC/CCT in actin and tubulin folding</p> <p>Formation of a pool of free 40S subunits</p> <p>Ubiquitin Mediated Degradation of Phosphorylated Cdc25A</p> <p>Regulation of RUNX3 expression and activity</p> <p>Formation of tubulin folding intermediates by CCT/TriC</p> <p>Collagen chain trimerization</p> <p>GTP hydrolysis and joining of the 60S ribosomal subunit</p> <p>Degradation of GLI1 by the proteasome</p> <p>Nonsense-Mediated Decay (NMD)</p> <p>The role of GTSE1 in G2/M progression after G2 checkpoint</p> <p>SCF-beta-TrCP mediated degradation of Emi1</p> <p>FBXL7 down-regulates AURKA during mitotic entry and in early mitosis</p> <p>Recycling pathway of L1</p> <p>Cell Cycle, Mitotic</p> <p>AUF1 (hnRNP D0) binds and destabilizes mRNA</p> <p>Integrin cell surface interactions</p> <p>Regulation of RAS by GAPs</p> <p>Regulation of expression of SLITs and ROBOs</p> <p>Diseases associated with glycosaminoglycan metabolism</p> <p>Immune System</p>		
ND	8	<p>Adaptive Immune System</p> <p>Homeostasis</p> <p>Class I MHC mediated antigen processing & presentation</p> <p>Chk1/Chk2(Cds1) mediated inactivation of Cyclin B:Cdk1 complex</p> <p>Detoxification of Reactive Oxygen Species</p> <p>Gluconeogenesis</p> <p>Activation of Matrix Metalloproteinases</p> <p>Activation of BAD and translocation to mitochondria</p>		
DIO	32	<p>NCAM signaling for neurite out-growth</p> <p>Processing of Capped Intron-Containing Pre-mRNA</p> <p>HSF1 activation</p> <p>Chaperone Mediated Autophagy</p> <p>Defective B3GAT3 causes JDSSDDH</p> <p>Loss of Nlp from mitotic centrosomes</p> <p>Attenuation phase</p> <p>Cellular response to heat stress</p> <p>Defective EXT2 causes exostoses 2</p> <p>Signaling by PDGF</p> <p>Membrane Trafficking</p> <p>Advanced glycosylation endproduct receptor signaling</p> <p>Vesicle-mediated transport</p> <p>Transport to the Golgi and subsequent modification</p> <p>Antagonism of Activin by Follistatin</p> <p>mRNA Splicing - Major Pathway</p> <p>RHO GTPases activate CIT</p> <p>Regulation of HSF1-mediated heat shock response</p> <p>ER to Golgi Anterograde Transport</p> <p>HSF1-dependent transactivation</p> <p>Loss of proteins required for interphase microtubule organization from the centrosome</p> <p>Signaling by MET</p> <p>Neurodegenerative Diseases</p> <p>Defective B4GALT7 causes EDS, progeroid type</p> <p>Defective B3GALT6 causes EDS2 and SEMD11</p> <p>RHO GTPases Activate ROCKs</p> <p>COPI-dependent Golgi-to-ER retrograde traffic</p> <p>mRNA Splicing</p> <p>Intra-Golgi and retrograde Golgi-to-ER traffic</p> <p>Regulation of PLK1 Activity at G2/M transition</p> <p>Deregulated CDK5 triggers multiple neurodegenerative pathways in Alzheimer's disease models</p> <p>Defective EXT1 causes exostoses 1, TRPS2 and CHDS</p>		

Names	total	elements			
DIO	ND	269	<ul style="list-style-type: none"> Reelin Signaling in Neurons Molecular Mechanisms of Cancer Dopamine Receptor Signaling fMLP Signaling in Neutrophils Xenobiotic Metabolism General Signaling Pathway UVA-Induced MAPK Signaling Role of NFAT in Regulation of the Immune Response Methionine Degradation I (to Homocysteine) LPS-stimulated MAPK Signaling Glycogen Degradation III Cardiac Hypertrophy Signaling Insulin Secretion Signaling Pathway IL-22 Signaling Signaling by Rho Family GTPases Neurotrophin/TRK Signaling Role of Tissue Factor in Cancer Fatty Acid CE2-oxidation Senescence Pathway Role of NFAT in Cardiac Hypertrophy Ephrin Receptor Signaling DNA Methylation and Transcriptional Repression Signaling ErbB Signaling Melanocyte Development and Pigmentation Signaling Aspartate Degradation II Cancer Drug Resistance By Drug Efflux GNRH Signaling Isoleucine Degradation I Arginine Degradation VI (Arginase 2 Pathway) Adrenomedullin signaling pathway CNTF Signaling Unfolded protein response BMP signaling pathway Endocannabinoid Developing Neuron Pathway Mechanisms of Viral Exit from Host Cells Proline Biosynthesis II (from Arginine) Acetyl-CoA Biosynthesis I (Pyruvate Dehydrogenase Complex) Estrogen-Dependent Breast Cancer Signaling Apelin Adipocyte Signaling Pathway Glucose and Glucose-1-phosphate Degradation PFKFB4 Signaling Pathway Leukocyte Extravasation Signaling IL-6 Signaling Endometrial Cancer Signaling Regulation of IL-2 Expression in Activated and Anergic T Lymphocytes Remodeling of Epithelial Adherens Junctions Caveolar-mediated Endocytosis Signaling CTLA4 Signaling in Cytotoxic T Lymphocytes mTOR Signaling Telomerase Signaling UVC-Induced MAPK Signaling Neuregulin Signaling Pentose Phosphate Pathway (Oxidative Branch) Ephrin B Signaling RAN Signaling Xenobiotic Metabolism CAR Signaling Pathway Hypoxia Signaling in the Cardiovascular System Superpathway of Inositol Phosphate Compounds Ethanol Degradation IV GP6 Signaling Pathway Non-Small Cell Lung Cancer Signaling HIF1CE± Signaling Role of PKR in Interferon Induction and Antiviral Response Prostate Cancer Signaling Synaptic Long Term Potentiation Acute Myeloid Leukemia Signaling Ethanol Degradation II Hepatic Fibrosis Signaling Pathway Histamine Degradation Leucine Degradation I RhoGDI Signaling PAK Signaling Synaptogenesis Signaling Pathway GE±12/13 Signaling Proline Biosynthesis I ErbB2-ErbB3 Signaling Salvage Pathways of Pyrimidine Ribonucleotides tRNA Charging Autophagy Tight Junction Signaling Huntington's Disease Signaling Colanic Acid Building Blocks Biosynthesis Opioid Signaling Pathway Xenobiotic Metabolism Signaling CCR3 Signaling in Eosinophils Inhibition of ARE-Mediated mRNA Degradation Pathway eNOS Signaling Prolactin Signaling PPARCE±/RXRCE± Activation Aggrin Interactions at Neuromuscular Junction PDGF Signaling Ceramide Signaling Valine Degradation I Glycogen Biosynthesis II (from UDP-D-Glucose) Oxidative Ethanol Degradation III Tec Kinase Signaling VEGF Signaling Cellular Effects of Sildenafil (Viagra) Virus Entry via Endocytic Pathways Thioredoxin Pathway p70S6K Signaling ERK/MAPK Signaling Regulation of Actin-based Motility by Rho Mitochondrial Dysfunction Nitric Oxide Signaling in the Cardiovascular System Oncostatin M Signaling Aryl Hydrocarbon Receptor Signaling Aldosterone Signaling in Epithelial Cells D-myo-inositol (1,4,5,6)-Tetrakisphosphate Biosynthesis Protein Ubiquitination Pathway Tetrahydrofolate Salvage from 5,10-methylenetetrahydrofolate Putrescine Degradation III Macropinocytosis Signaling Superpathway of Geranylgeranyldiphosphate Biosynthesis I (via Mevalonate) Erythropoietin Signaling Thrombin Signaling D-myo-inositol (3,4,5,6)-tetrakisphosphate Biosynthesis NF-CE±B Activation by Viruses Integrin Signaling Superpathway of Methionine Degradation GE±linolenate Biosynthesis II (Animals) HGF Signaling PI3K/AKT Signaling Glutathione Biosynthesis GDP-mannose Biosynthesis Glioma Invasiveness Signaling Lipid Antigen Presentation by CD1 EGF Signaling IL-17 Signaling Axonal Guidance Signaling GM-CSF Signaling Glutaryl-CoA Degradation PPAR Signaling SPINK1 General Cancer Pathway IL-2 Signaling Semaphorin Signaling in Neurons Epithelial Adherens Junction Signaling Role of JAK1 and JAK3 in CE±Cytokine Signaling Mevalonate Pathway I AMPK Signaling NER Pathway Cdc42 Signaling Antiproliferative Role of Somatostatin Receptor 2 Natural Killer Cell Signaling GDNF Family Ligand-Receptor Interactions ERK5 Signaling Cysteine Biosynthesis III (mammalia) Gap Junction Signaling G Beta Gamma Signaling RhoA Signaling Glioblastoma Multiforme Signaling Superpathway of Serine and Glycine Biosynthesis I IL-8 Signaling Renin-Angiotensin Signaling Production of Nitric Oxide and Reactive Oxygen Species in Macrophages IL-3 Signaling Coronavirus Pathogenesis Pathway GE±q Signaling Role of MAPK Signaling in the Pathogenesis of Influenza NGF Signaling ILK Signaling Paxillin Signaling Glioma Signaling Colorectal Cancer Metastasis Signaling Heme Biosynthesis from Uroporphyrinogen-III I Gluconeogenesis I GDP-glucose Biosynthesis 3-phosphoinositide Degradation PEDF Signaling Semaphorin Neuronal Repulsive Signaling Pathway Thrombopoietin Signaling Melatonin Signaling SAPK/JNK Signaling UDP-N-acetyl-D-glucosamine Biosynthesis II Granzyme A Signaling Purine Nucleotides De Novo Biosynthesis II Chronic Myeloid Leukemia Signaling Glutathione Redox Reactions II GE±Adrenergic Signaling Renal Cell Carcinoma Signaling Hereditary Breast Cancer Signaling NADH Repair PTEN Signaling Angiotensin Signaling Fatty Acid CE±oxidation I JAK/Stat Signaling TCA Cycle II (Eukaryotic) Clathrin-mediated Endocytosis Signaling Role of JAK family kinases in IL-6-type Cytokine Signaling BAG2 Signaling Pathway Dopamine Degradation Phagosome Maturation UDP-N-acetyl-D-galactosamine Biosynthesis II Phenylethylamine Degradation I Chemokine Signaling Methylglyoxal Degradation III EIF2 Signaling Phospholipase C Signaling IL-15 Signaling Iron homeostasis signaling pathway Cleavage and Polyadenylation of Pre-mRNA CDK5 Signaling Actin Nucleation by ARP-WASP Complex FLT3 Signaling in Hematopoietic Progenitor Cells 14-3-3-mediated Signaling Inosine-5'-phosphate Biosynthesis II Glycolysis I Fc Epsilon RI Signaling Ketogenesis Systemic Lupus Erythematosus Signaling Sertoli Cell-Sertoli Cell Junction Signaling UVB-Induced MAPK Signaling IL-1 Signaling Noradrenaline and Adrenaline Degradation ErbB4 Signaling Necroptosis Signaling Pathway Amyloid Processing Heme Biosynthesis II Arginine Biosynthesis IV Superpathway of Cholesterol Biosynthesis CXCR4 Signaling Xenobiotic Metabolism PXR Signaling Pathway Sirtuin Signaling Pathway Regulation of Cellular Mechanics by Calpain Protease ATM Signaling Oxidative Phosphorylation Germ Cell-Sertoli Cell Junction Signaling Pentose Phosphate Pathway Pyridoxal 5'-phosphate Salvage Pathway Apelin Endothelial Signaling Pathway P2Y Purinergic Receptor Signaling Pathway Retinoate Biosynthesis I Cholecystokinin/Gastrin-mediated Signaling B Cell Receptor Signaling Tryptophan Degradation X (Mammalian, via Tryptamine) Protein Kinase A Signaling RAR Activation Rac Signaling Apoptosis Signaling Actin Cytoskeleton Signaling HIPPO signaling Acute Phase Response Signaling Superoxide Radicals Degradation D-myo-inositol-5-phosphate Metabolism Estrogen Receptor Signaling Prostanoid Biosynthesis Insulin Receptor Signaling Tryptophan Degradation III (Eukaryotic) CREB Signaling in Neurons Pyrimidine Ribonucleotides De Novo Biosynthesis Dopamine-DARPP32 Feedback in cAMP Signaling Mouse Embryonic Stem Cell Pluripotency Spliceosomal Cycle Sumoylation Pathway FAK Signaling Xenobiotic Metabolism AHR Signaling Pathway Stearate Biosynthesis I (Animals) Androgen Signaling FcCE± Receptor-mediated Phagocytosis in Macrophages and Monocytes Pancreatic Adenocarcinoma Signaling Ketolysis IGF-1 Signaling Heme Degradation Glycogen Degradation II Mitotic Roles of Polo-Like Kinase Glucocorticoid Receptor Signaling FAT10 Signaling Pathway Melanoma Signaling Regulation of eIF4 and p70S6K Signaling NRF2-mediated Oxidative Stress Response 		
ND	23	<ul style="list-style-type: none"> Hepatic Fibrosis / Hepatic Stellate Cell Activation Thyroid Cancer Signaling Cardiac Hypertrophy Signaling (Enhanced) Glutathione Redox Reactions I NF-CE±B Signaling Death Receptor Signaling 2-oxobutanoate Degradation I Methylmalonyl Pathway FAT10 Cancer Signaling Pathway VEGF Family Ligand-Receptor Interactions Ovarian Cancer Signaling TGF-CE± Signaling GE±i Signaling Synaptic Long Term Depression Leptin Signaling in Obesity PI3K Signaling in B Lymphocytes Regulation Of The Epithelial-Mesenchymal Transition By Growth Factors Pathway Regulation of the Epithelial-Mesenchymal Transition Pathway Cardiac CE±-adrenergic Signaling HMGBl Signaling Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I HER-2 Signaling in Breast Cancer T Cell Receptor Signaling 			
DIO	12	<ul style="list-style-type: none"> CD40 Signaling Kinetochore Metaphase Signaling Pathway PRPP Biosynthesis I Apelin Liver Signaling Pathway Pyrimidine Ribonucleotides Interconversion 3-phosphoinositide Biosynthesis Endocannabinoid Cancer Inhibition Pathway Apelin Cardiomyocyte Signaling Pathway 4-1BB Signaling in T Lymphocytes Cell Cycle: G2/M DNA Damage Checkpoint Regulation Molybdenum Cofactor Biosynthesis Cell Cycle Control of Chromosomal Replication 			

Names	total	elements		
DIO ND	93	Reelin Signaling in Neurons		
		Sertoli Cell-Sertoli Cell Junction Signaling		
		Dopamine Receptor Signaling		
		Cdc42 Signaling		
		Intrinsic Prothrombin Activation Pathway		
		Gap Junction Signaling		
		Granulocyte Adhesion and Diapedesis		
		RhoA Signaling		
		RhoGDI Signaling		
		Glycogen Degradation III		
		Synaptogenesis Signaling Pathway		
		IL-8 Signaling		
		Coronavirus Pathogenesis Pathway		
		Arginine Biosynthesis IV		
		Signaling by Rho Family GTPases		
		Paxillin Signaling		
		ILK Signaling		
		Hepatic Fibrosis / Hepatic Stellate Cell Activation		
		Xenobiotic Metabolism PXR Signaling Pathway		
		Regulation of Cellular Mechanics by Calpain Protease		
		Ephrin Receptor Signaling		
		tRNA Charging		
		Aspartate Degradation II		
		Tight Junction Signaling		
		Huntington's Disease Signaling		
		Gluconeogenesis I		
		Germ Cell-Sertoli Cell Junction Signaling		
		CCR3 Signaling in Eosinophils		
		Pentose Phosphate Pathway		
		Semaphorin Neuronal Repulsive Signaling Pathway		
		Inhibition of ARE-Mediated mRNA Degradation Pathway		
		Agrin Interactions at Neuromuscular Junction		
		Purine Nucleotides De Novo Biosynthesis II		
		Protein Kinase A Signaling		
		5-aminoimidazole Ribonucleotide Biosynthesis I		
		VEGF Signaling		
		Unfolded protein response		
		Cellular Effects of Sildenafil (Viagra)		
		Formaldehyde Oxidation II (Glutathione-dependent)		
		Virus Entry via Endocytic Pathways		
		p70S6K Signaling		
		Mechanisms of Viral Exit from Host Cells		
		Rac Signaling		
		ERK/MAPK Signaling		
		Regulation of Actin-based Motility by Rho		
		Actin Cytoskeleton Signaling		
		TCA Cycle II (Eukaryotic)		
		HIPPO signaling		
		Clathrin-mediated Endocytosis Signaling		
		BAG2 Signaling Pathway		
		Aldosterone Signaling in Epithelial Cells		
		Protein Ubiquitination Pathway		
		Phagosome Maturation		
		Estrogen Receptor Signaling		
		Leukocyte Extravasation Signaling		
		Insulin Receptor Signaling		
		Remodeling of Epithelial Adherens Junctions		
		Caveolar-mediated Endocytosis Signaling		
		CTLA4 Signaling in Cytotoxic T Lymphocytes		
		mTOR Signaling		
		Agranulocyte Adhesion and Diapedesis		
		Dopamine-DARPP32 Feedback in cAMP Signaling		
		Thrombin Signaling		
		FAK Signaling		
		Xenobiotic Metabolism AHR Signaling Pathway		
		Pentose Phosphate Pathway (Oxidative Branch)		
		Integrin Signaling		
		Ephrin B Signaling		
		RAN Signaling		
		PI3K/AKT Signaling		
		Hypoxia Signaling in the Cardiovascular System		
		HIF1CE± Signaling		
		GP6 Signaling Pathway		
		FcCE≥ Receptor-mediated Phagocytosis in Macrophages and Monocytes		
		EIF2 Signaling		
		SPINK1 Pancreatic Cancer Pathway		
		Inhibition of Matrix Metalloproteases		
		IGF-1 Signaling		
		Role of PKR in Interferon Induction and Antiviral Response		
		Lipid Antigen Presentation by CD1		
		Glycogen Degradation II		
		Axonal Guidance Signaling		
		CDK5 Signaling		
		FAT10 Signaling Pathway		
		Cardiac CE±-adrenergic Signaling		
		Actin Nucleation by ARP-WASP Complex		
		14-3-3-mediated Signaling		
		Inosine-5'-phosphate Biosynthesis II		
		Semaphorin Signaling in Neurons		
		Epithelial Adherens Junction Signaling		
		Regulation of eIF4 and p70S6K Signaling		
		NRF2-mediated Oxidative Stress Response		
		Glycolysis I		
ND	20	fMLP Signaling in Neutrophils		
		Natural Killer Cell Signaling		
		Neuroprotective Role of THOP1 in Alzheimer's Disease		
		PAK Signaling		
		CXCR4 Signaling		
		3-phosphoinositide Degradation		
		Aryl Hydrocarbon Receptor Signaling		
		D-myo-inositol (1,4,5,6)-Tetrakisphosphate Biosynthesis		
		Acute Phase Response Signaling		
		D-myo-inositol-5-phosphate Metabolism		
		Chemokine Signaling		
		Complement System		
		D-myo-inositol (3,4,5,6)-tetrakisphosphate Biosynthesis		
		Neuregulin Signaling		
		Sucrose Degradation V (Mammalian)		
		Xenobiotic Metabolism CAR Signaling Pathway		
		LXR/RXR Activation		
		Osteoarthritis Pathway		
		Phospholipase C Signaling		
		Atherosclerosis Signaling		
DIO	9	Superpathway of Serine and Glycine Biosynthesis I		
		Sirtuin Signaling Pathway		
		Granzyme A Signaling		
		Oxidized GTP and dGTP Detoxification		
		Coagulation System		
		Superoxide Radicals Degradation		
		Spliceosomal Cycle		
		Superpathway of Methionine Degradation		
		Ephrin A Signaling		

Names	total	elements				
DIO ND	384	VDR PPARD CD44 ethoxyquin PAX7 1,2-dithiol-3-thione ROCK1 ZAP70 ATF6 Creb Secalictol DCX EDN1 PLG PPARGC1A galactose MEF2D CREB3L2 N-propyl bromide CACNA1C Akt SOX7 ILK BRD4 NCOA3 IGF1 genfibrozil MAPK14 TGF2 PTX2 AGN194204 WNT1 RAB1B isobutylmethylxanthine RAC1 CCN2 CCL5 DPP-23 TP53 CD3 Gefitinib D-glucose VBP1 LINC01139 homocysteine MITF dinoprost poly r(r):C-RNA PDGF BB STK11 FLT1 TNF inosine INSR TGFBR2 RGS19 LCK EZF NCX-4040 DDX5 RAF1 gentamicin C CAPN3 ERK EIF4E HOTAIR 5-hydroxytryptamine EGF USF2 CCR2 thioacetamide MMP1 FGF1 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine dexmethasone SERPINH1 H1f1 butylated hydroxyanisol diethylnitrosamine PPARA cadmium SOX4 KLF15 CD300LF CD24 TCF7L2 Gm15807/Hmg5 Brd4 PKM sodium arsenite TEAD1 CALR LEP L-triiodothyronine SRC (family) LDL WR 1065 MYCBP rhodiolsolide ter-butyl-hydroquinone SFRQ ELAVL1 TGF2 Z-L1-CHO sucrose PI3K (family) geldanamycin CAB39L LIMS2 AKT1 PRKCB JAK2 PTPN3 guanidinopropionic acid 2-amino-1-methyl-6-phenylimidazo-4-5-b-pyridine Roxk MAP2K5 Firn PRL Insulin ETV4 NR1H3 UTP ROCK2 nitric oxide cisplatin MYCL SPP1 LINC00842 testosterone lomustine Igs F2 cephaloridine OSM TFEB YAP1 PI3K (complex) 6-hydroxydopamine crocidolite asbestos IRAK3 NCF1 arsenite FGF7 CTHNB1 MLXIP H1-6 gentamicin MKNK1 AKT2 EGFR clofibrate IKBK CBR-470-1 SP1 CD38 aurothioglucose vancomycin VTN SYN1 allopurinol 2-bromoethylamine bisphenol A EBF1 ethionine diquat bortezomib phytohemagglutinin KDM8 diethylmaleate arsenic HTT cardiotoxin PCEM1 UCP1 SEMA7A IL15 3,5-diodothyronine ESR1 ACLY ERBB2 RLIM KITLG MAPK7 ARNT LCN2 rosiglitazone ELL2 HBEFG ZBTB7B CCAR2 PTK2 FOS FNG IPMK methotrexate FLI1 17-alpha-ethinylestradiol CSF1 RETN JUNB SMARCB1 LLGL2 ILA SREBF1 bardoxolone CD28 cis-urocanic acid HNRNPR MUC1 pirinixic acid Collagen type I (complex) EPAS1 bezafibrate carbon tetrachloride D-fructose mibolerone PDGF (family) TEAD3 phosphate SPZ1 RABL6 FGF2 genistein palmitic acid NORAD MAP2K4 CH-223191 Pdgf (complex) PFDN6 acetaminophen LAMTOR1 cadmium chloride SRFBF2 LINC51 VEGFA tretinoin mini-GAGR THR8 CDH11 triamterene LIN28A IL3 GNA12 sphingosine-1-phosphate TGF2 fenofibrate Cdc42 ADORA2A EDNRA S100A6 IGF1R CEBPB METTL3 Tgf beta GAST HIF1 EIF3M F10 5-azacytidine HSF2 beta-estradiol MYC F2R ESRA ERN1 PFDN5 STAT4 JUN nitrofurantoin BCL2L1 KDM3A azetidyl-2-carboxylic acid TO-901317 E2F1 NSUN6 NRG1 ROK1 estrogen FBXO2 ciprofibrate PPARGC1B methapyrene AR INHBB benzo(a)pyrene bleomycin TAZ Calcineurin A phenylbutazone MRTFA forskolin NFE2L1 OKI methylprednisolone MAP2K3 FOXF1 elaidic acid methylnitrosourea SCAP AGTR2 IL5 AGT tunicamycin MAP3K1 ERK E2F3 Smad2/3/4 MYCN HSP90B1 EPO progesterone PPARG GNA13 indomethacin MAFF ATF4 hexachlorobenzene L-glutamic acid uranyl nitrate mono-(2-ethylhexyl)phthalate FOXO3 lipopolyaccharide ASPC1 feramic acid RHOA Hbb-b1 TCR CD247 IKBKE HIF1A PRKCA PLA2R1 CD40LG HGF MRTFB SRFBF1 NR1D1 EIF2AK3 RET MASTL PTH cholic acid TCF4 Srebp coal tar RB1 SMYD1 PDGFC prostaglandin J2 lactacystin TP53 AP EGR1 (-)-norphephrine NFYA IGF2BP1 thapsigargin Ins1 dihydrotestosterone PNPLA2 SRC HBA1/HBA2 KNG1 XBP1 CASR MTPN metribolone FN1 USF1 hydrogen peroxide PGR PFDN2 MIR143-145a ammonium chloride FGF10 EIF2AK4 ANGPT2 Gm26313 NFE2L2 cinnamaldehyde NR1 cigarette smoke MYOD1 ND	70	Pro-inflammatory Cytokine TIMP0 IFI16 desoxycorticosterone leupeptin AIFM1 RAS WWTR1 Pkc(s) PLA2G4A phenacetin ITGB6 tetradecanoylphorbol acetate Vmi NFASC mycophenolic acid S1PR2 PIK3R1 GLI1 PTCD1 RUVBL1 Ras homolog BMP7 TNFSF11 MAP2K1 THBS4 TL1B IL1B FOXM1 oxidized glycation end-products CYP2E1 tosedostat FGF21 IL2 ATM streptozocin PFKFB3 farnesyl pyrophosphate SMARCA4 F3 BRD7 NR12 CXCL12 anandamide lysophosphatidic acid SMAD4 FLS RETNLB BML-284 H2AX NOTCH3 trypsin TIMP1 AIF1 aldesleukin ERK1/2 AIMP2 TWIST1 JAK1 progesterone MMP1 C11orf95-RELA growth hormone platelet activating factor CXCL8 1,4-bis[2-(3,5-dichloropyridyloxy)]benzene DERNDE deferoxamine ARNT2 KLF6 NR113 DIO	33	RPTOR BMP6 PF111B CFR1 RARA LOX CCN1 NGF NEDD9 NKX2-2-AS1 beta-naphthoflavone NKX2-3 reactive oxygen species 3,4,5,3',4'-pentachlorobiphenyl Fus ITGB3 CD3 group CNR1 lithium chloride GF-120918 tetracycline iron HELLS DDX3X 3-methylcholanthrene WBP2 4-octyl itaconate bee venom triclosan isoquercitrin SOX2-OT CLDN7 NuP107