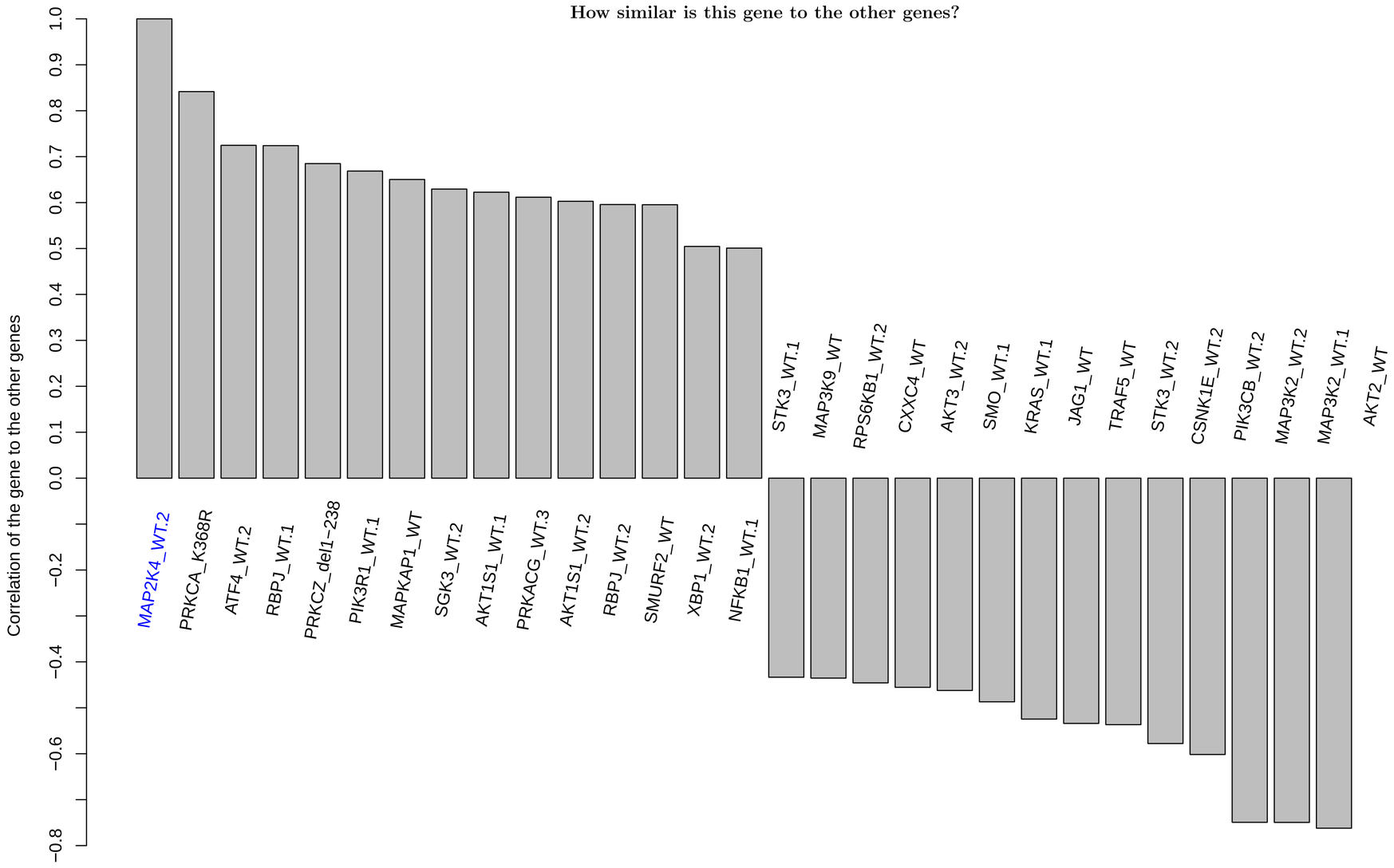
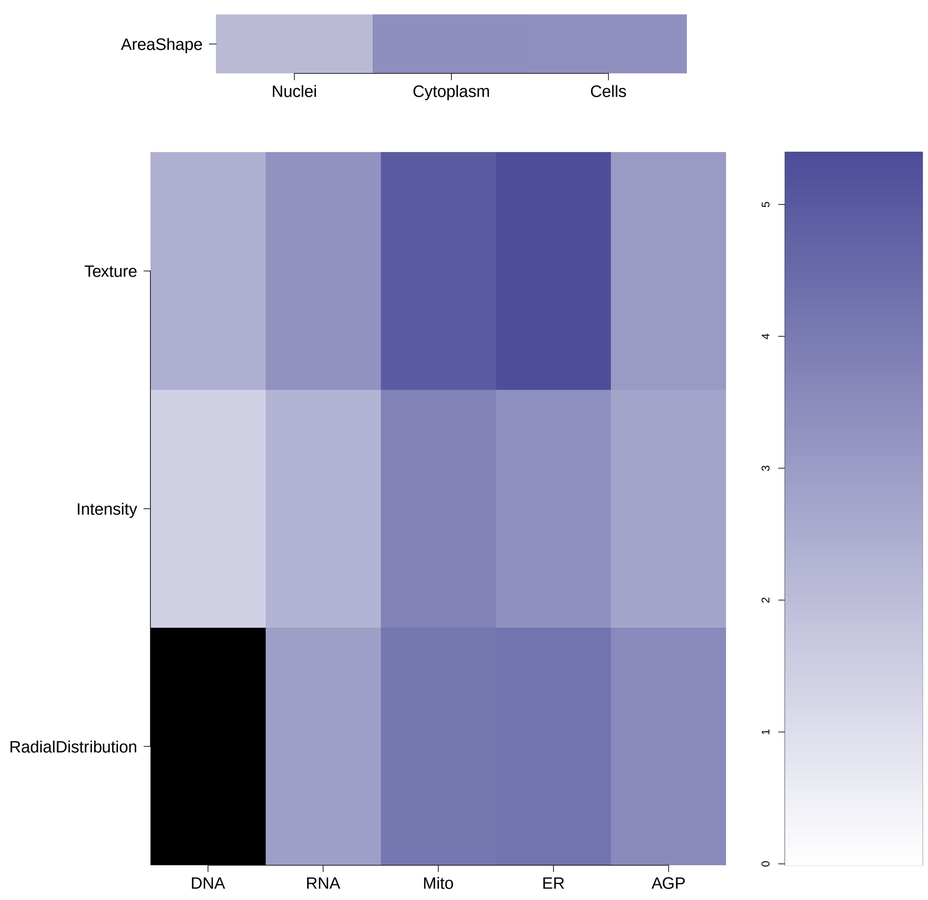
MAP2K4_WT.2 - in Canonical MAPK

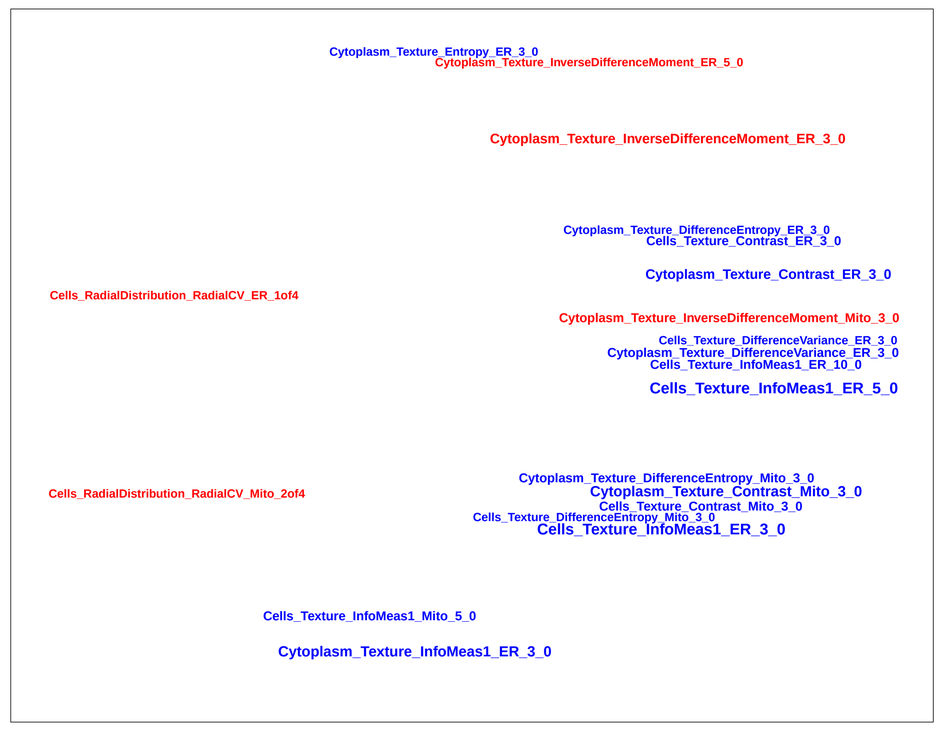
**How similar is this gene to the other genes?**

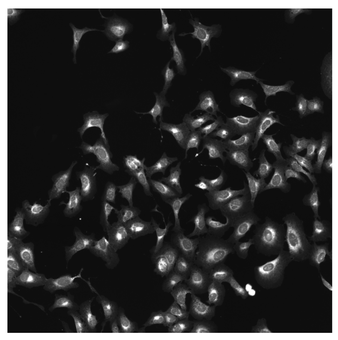
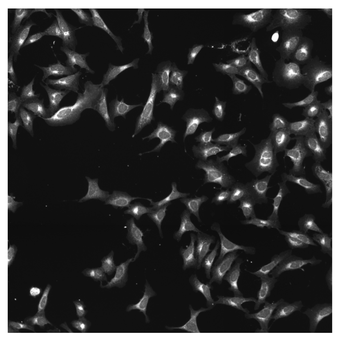
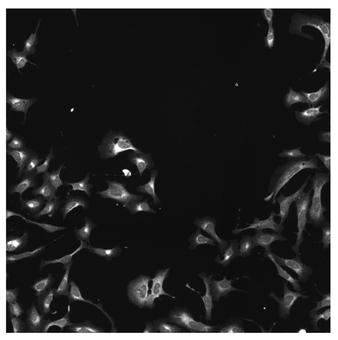
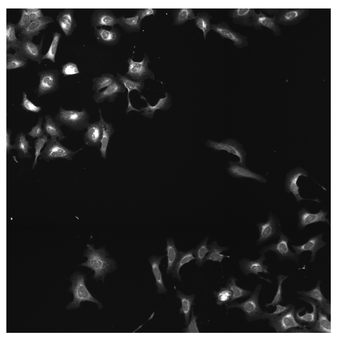
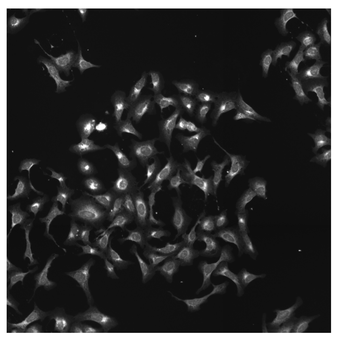
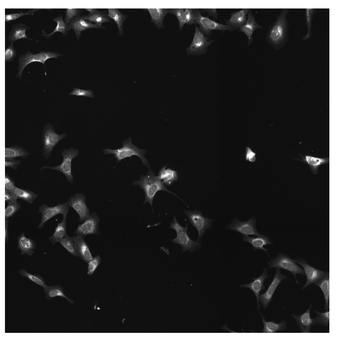
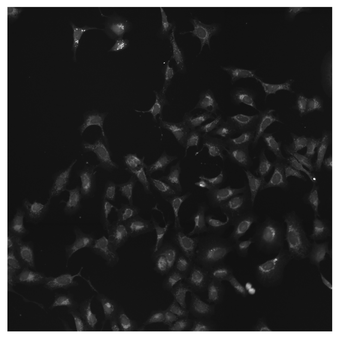
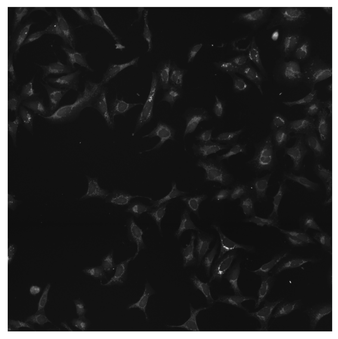
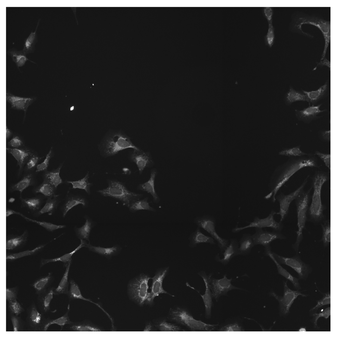
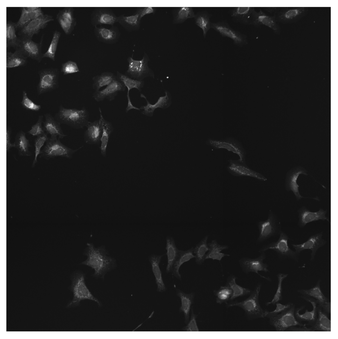
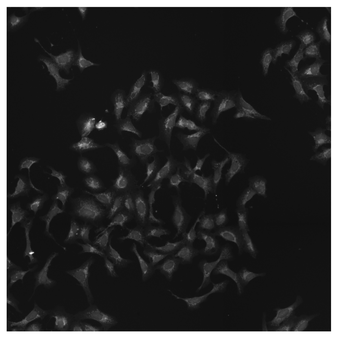
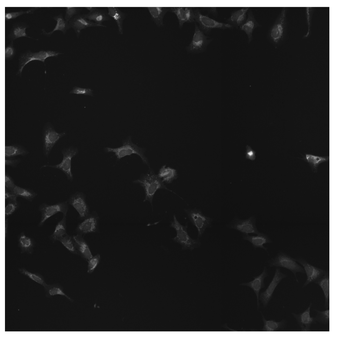



What groups of morphological features are distinguishing in the cluster relative to the untreated samples? (maximum of absolute m-score for the features belonging to the same category; m-score defined as median of a feature z-score across genes in the cluster) Black means no feature is available in the category

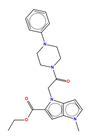
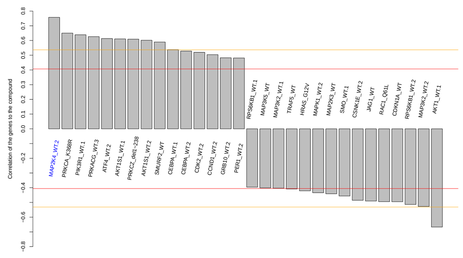
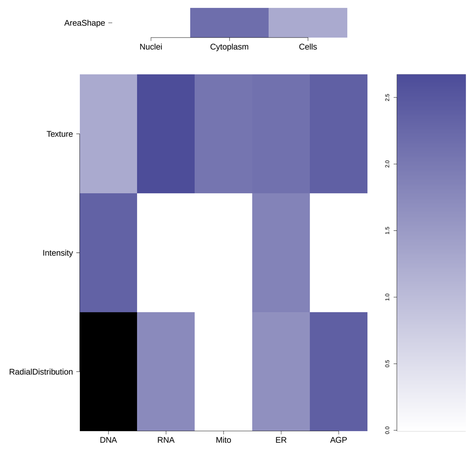
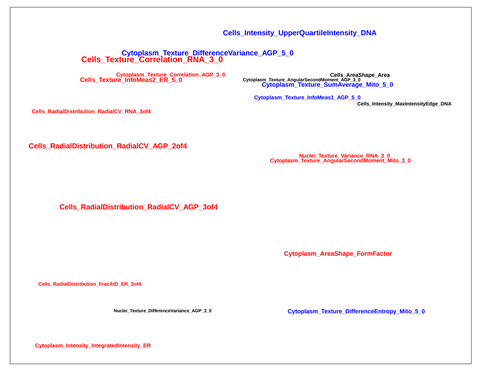
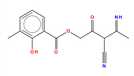
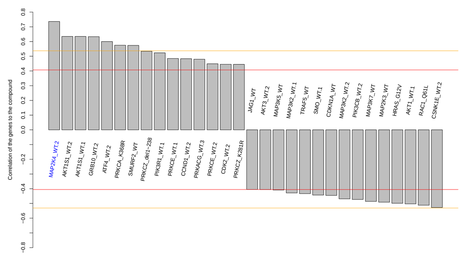
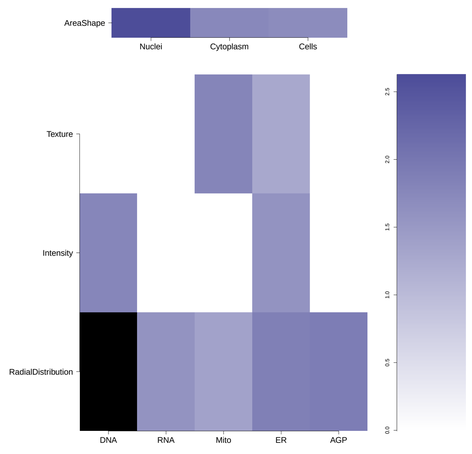
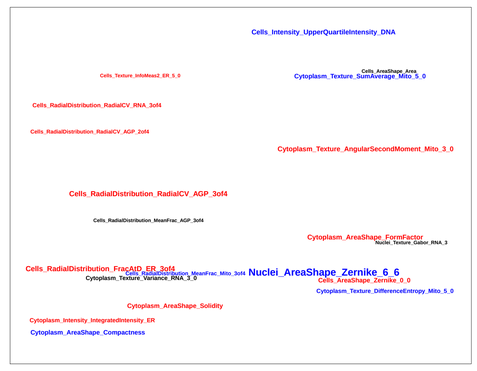
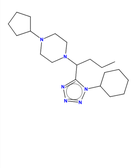
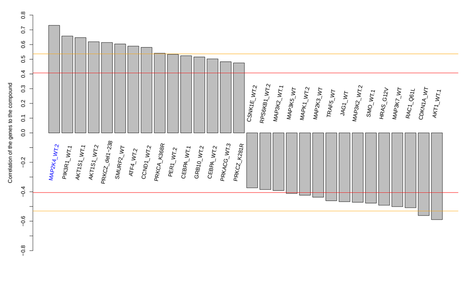
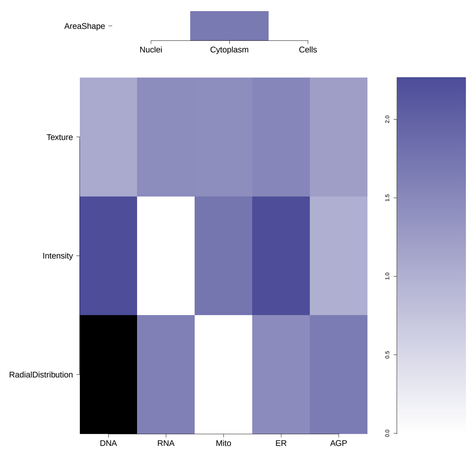
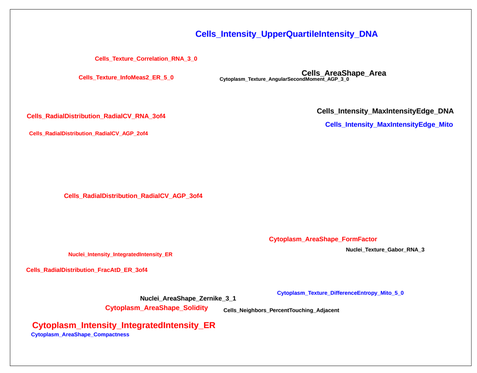
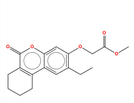
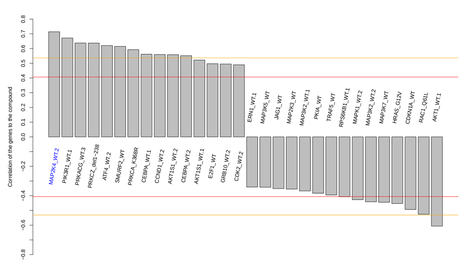
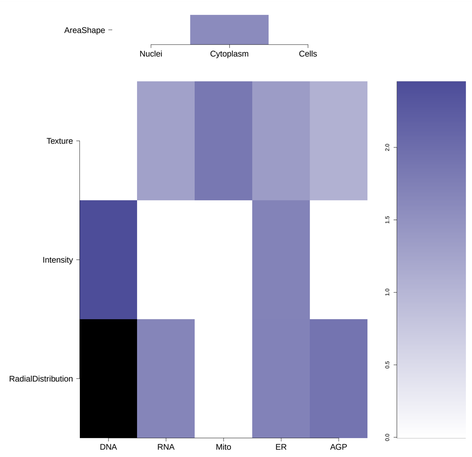
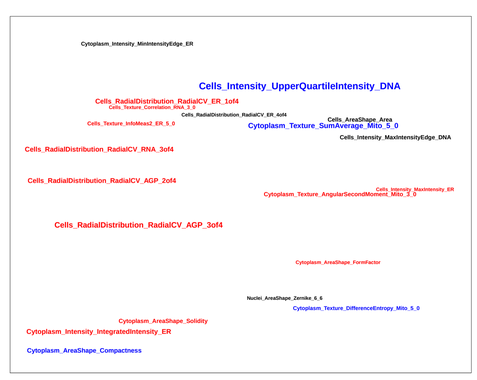
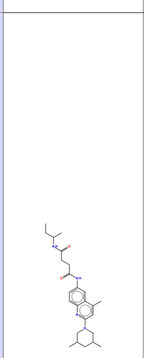
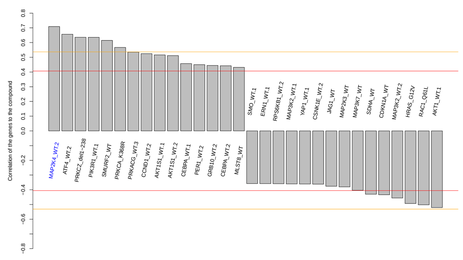
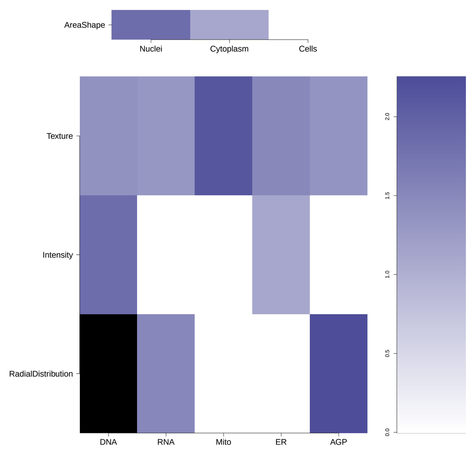
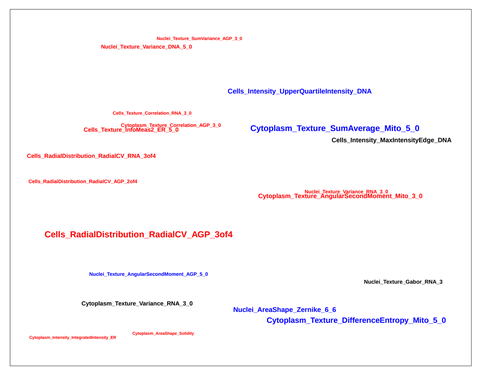
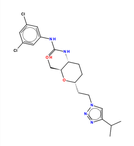
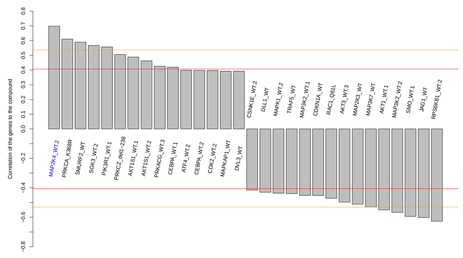
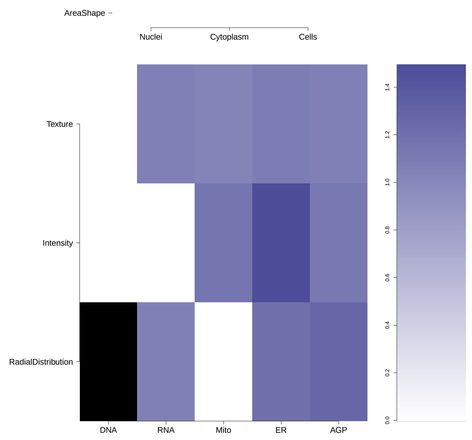


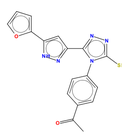
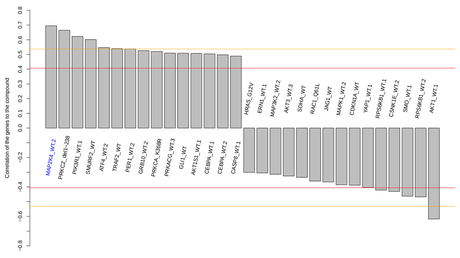
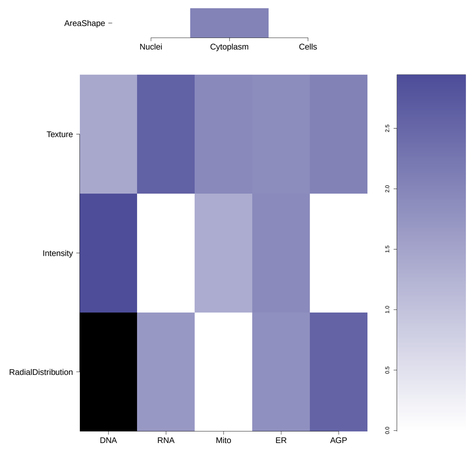
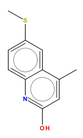
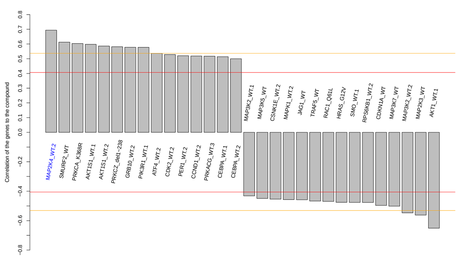
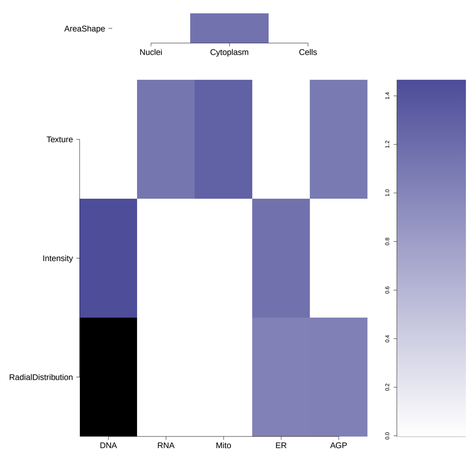
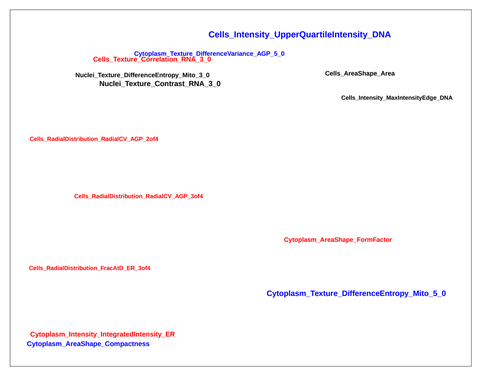
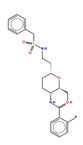
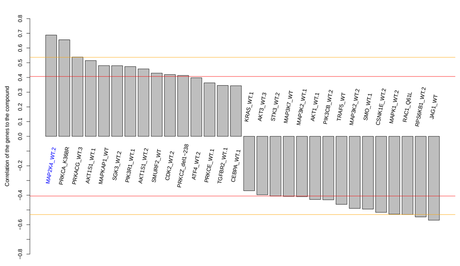
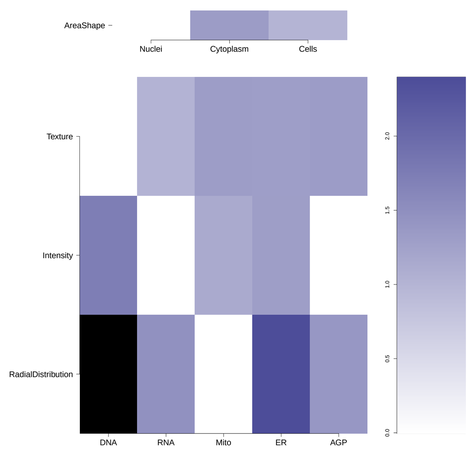
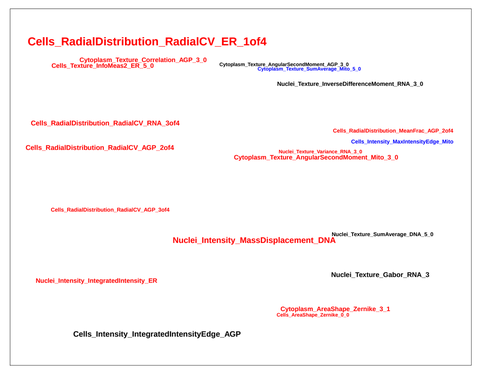
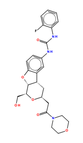
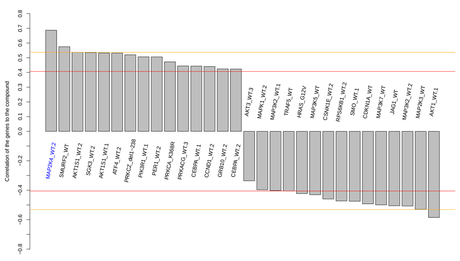
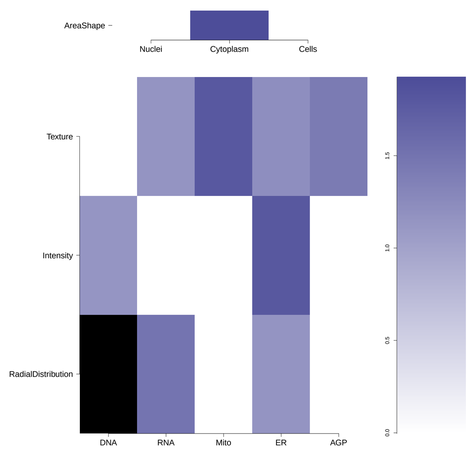
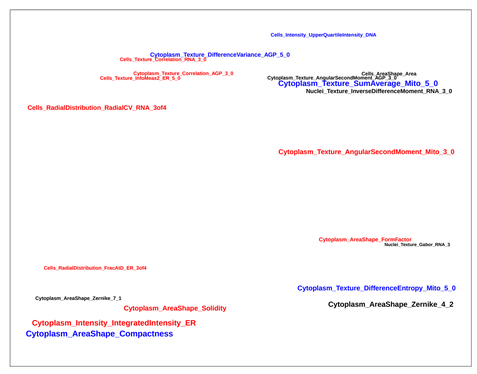
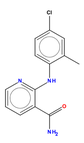
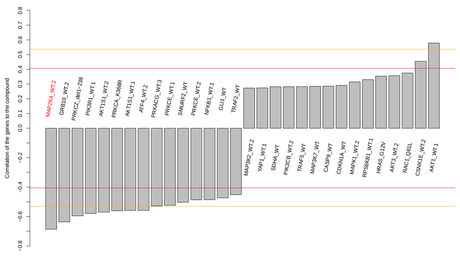
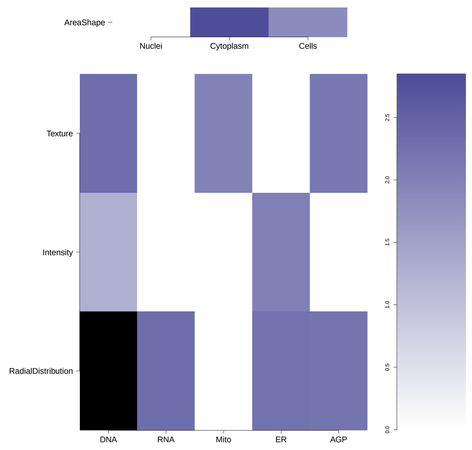
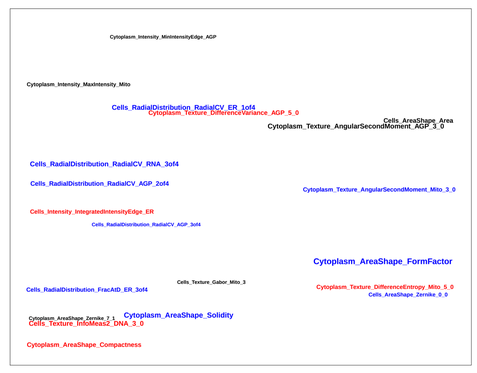
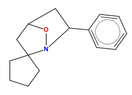
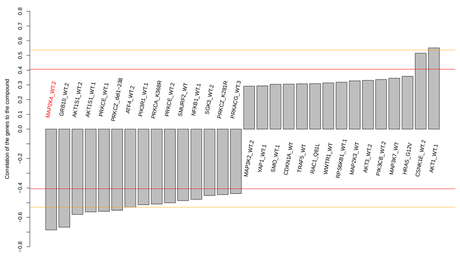
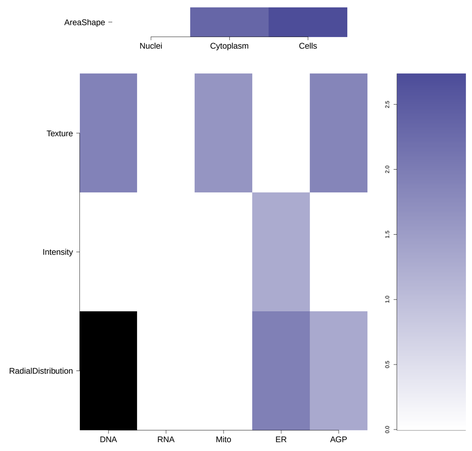
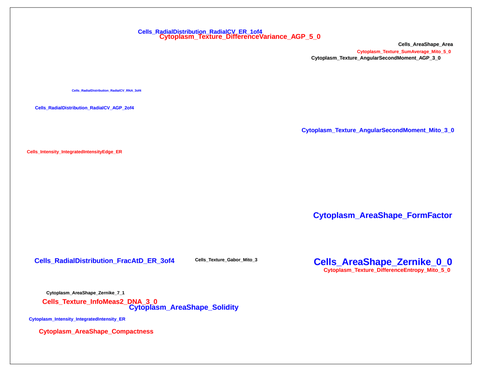

Which individual morphological features are distinguishing in the gene relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

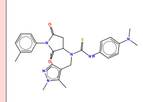
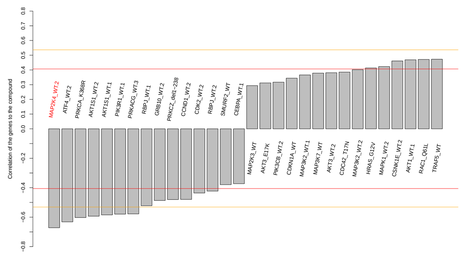
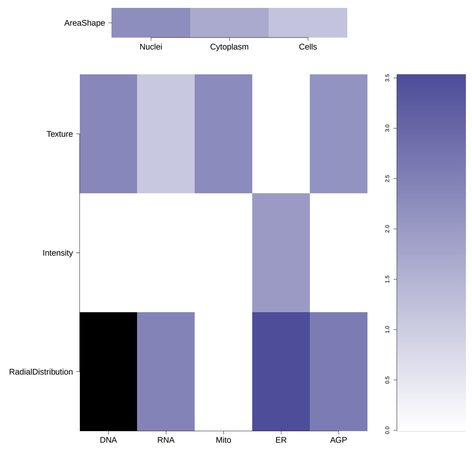
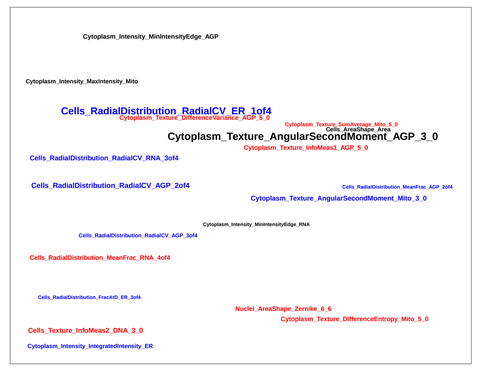
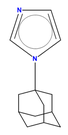
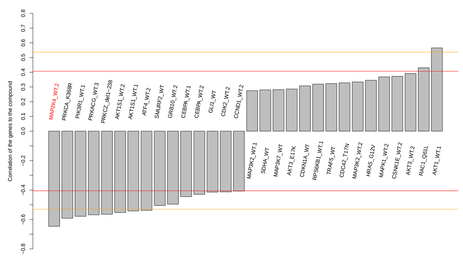
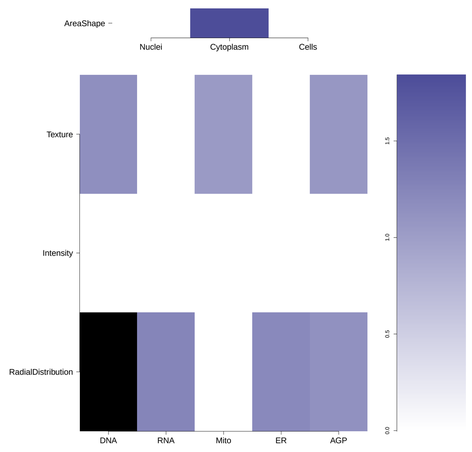
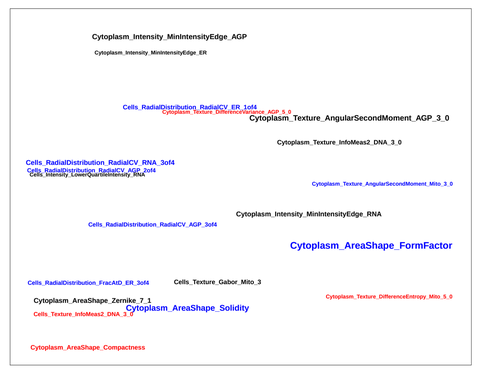
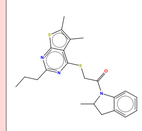
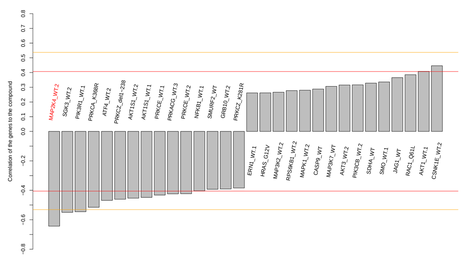
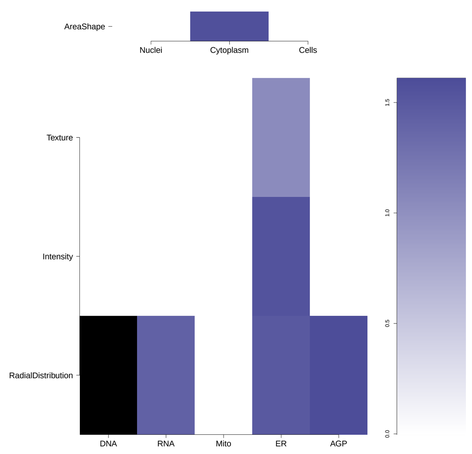
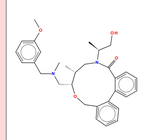
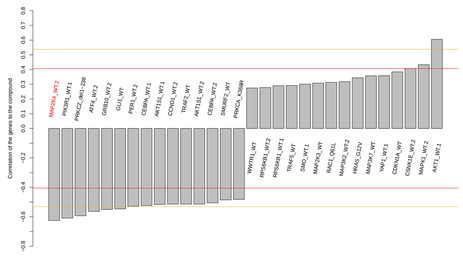
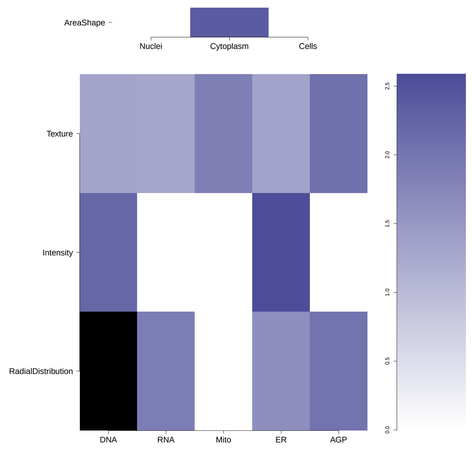
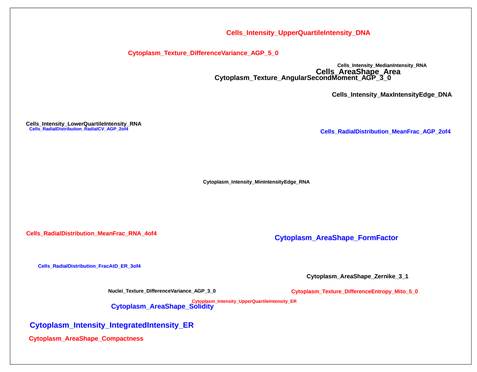
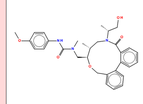
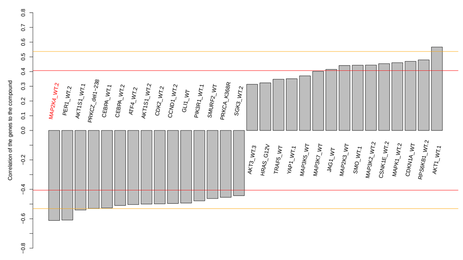
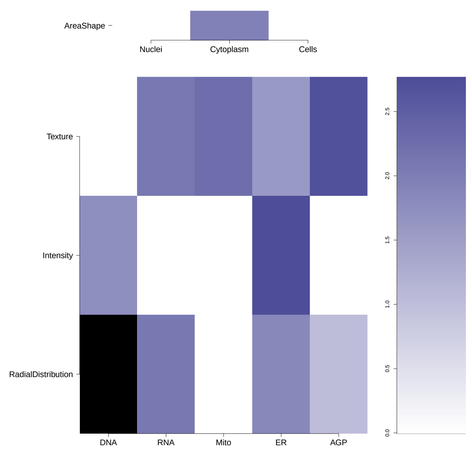
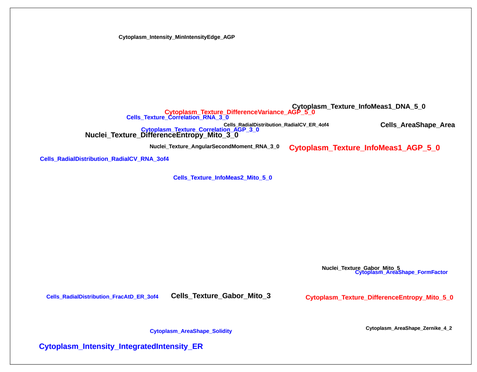
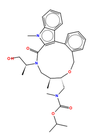
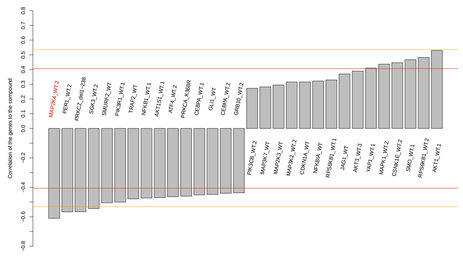
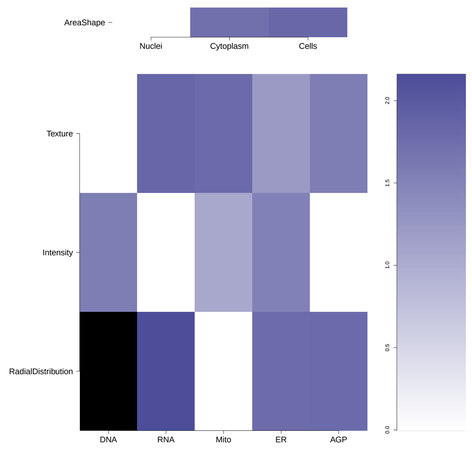
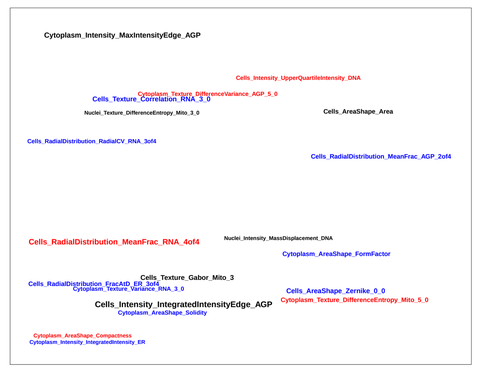
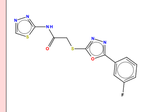
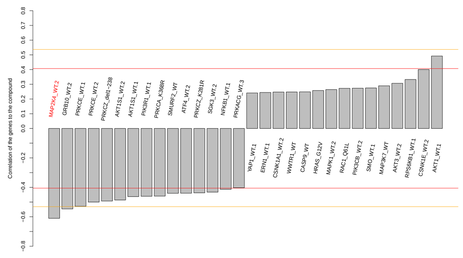
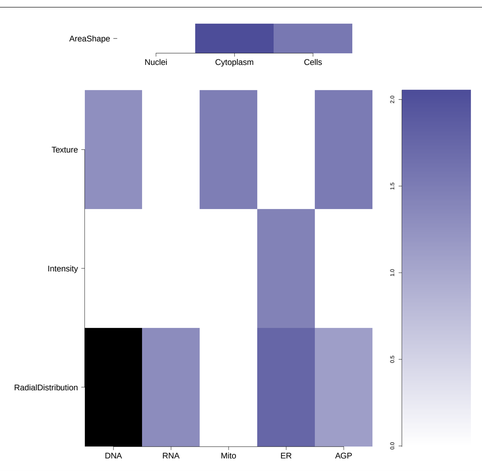
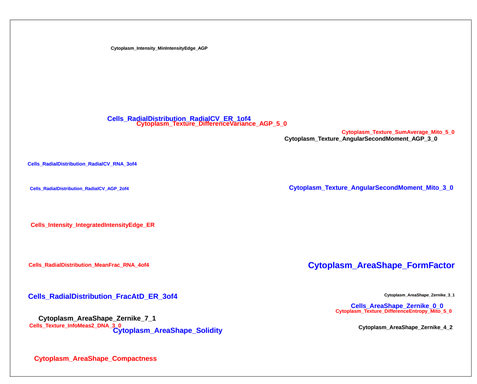



| Empty | MAP2K4_WT.2 (41744) | MAP2K4_WT.2 (41755) | MAP2K4_WT.2 (41756) | MAP2K4_WT.2 (41757) | MAP2K4_WT.2 (41754) |
|---|---|---|---|---|---|
| ER |  |  |  |  |  |  |
| Mito |  |  |  |  |  |  |

| Compound IDs and common names (where available); blue/red colored box means the matching compound is positively/negatively correlated with the cluster | Chemical structure | Mean pairwise replicates correlation of the compound signature (95th DMSO replicate correlation is 0.52) | Correlation between compound the gene | Compound rank when scored against the gene using L1000 profiling | How similar is the compound signature to the genes in this experiment? (Yellow and red lines correspond to top/bottom 1st and 5th percentile DMSO correlation to all the genes) | Common distinguishing feature categories in the compound and the gene relative to the untreated samples | Distinguishing individual features for the compound relative to untreated samples. Black means a mismatch; i.e. active (= high z-score in magnitude) in the compound, and either inactive (= small z-score in magnitude) or oppositely active in the gene | Number of PubChem assays in which the compound was tested; assays in which the compound was active are itemized |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BRD-K59496950-001-06-2<br>SMR000008290<br>AC1LDHEO<br>ASN 08222509<br>MLS000068187<br>MLS002538128<br>HMS2502P09<br>ZINC1337997<br>ZINC01337997<br>PubChem CID : 648117 |  | NA (in 1 replicates) | 0.76 | NA |  |  |  | Total number of assays tested in: 762. Active in the following assays:<br>• Luminescence Cell-Based Primary HTS to Identify Transcriptional Activators of Hypoxia-Inducible Factor Pathway (AID 1910)<br>• qHTS Inhibitors of AmpC Beta-Lactamase (assay with detergent) (AID 485294) |
| BRD-A02302336-001-05-9<br>T5228533<br>AC1O76PX<br>MLS000761494<br>HMS2771L16<br>ZINC13598471<br>SMR000371602<br>PubChem CID : 6520560 |  | NA (in 1 replicates) | 0.74 | NA |  |  |  | Total number of assays tested in: 568. Active in the following assays:<br>• A Cell Based HTS Approach for the Discovery of New Inhibitors of Respiratory syncytial virus (RSV) (AID 2391) |
| BRD-A04599535-003-05-3<br>SMR000004833<br>AC1O7EWO<br>MLS000029919<br>MLS002534451<br>PubChem CID : 6602651 |  | NA (in 1 replicates) | 0.73 | NA |  |  |  | Total number of assays tested in: 752. Active in the following assays:<br>• CYP2C19 Assay (AID 778)<br>• qHTS Assay for Agonists of the Thyroid Stimulating Hormone Receptor: Activators of Intracellular cAMP Concentrations in Parental HEK 293 (AID 938)<br>• uHTS of Mcl-1/Bid interaction inhibitors (AID 1021)<br>• Fluorescence-based primary cell-based high throughput screening assay to identify antagonists of the G-protein coupled receptor 7 (GPR7). (AID 1861) |
| BRD-K54768399-001-05-0<br>AC1MJYTX<br>BAS 03150481<br>MLS001210472<br>HMS1371E16<br>HMS2820H13<br>ZINC4151963<br>CCG-19476<br>ZINC04151963<br>SMR000518311<br>ST50451353<br>PubChem CID : 3145514 |  | NA (in 1 replicates) | 0.71 | NA |  |  |  | Total number of assays tested in: 517. Active in the following assays:<br>• Fluorescence-based biochemical primary high throughput screening assay to identify inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 588726)<br>• Fluorescence-based biochemical high throughput confirmation assay for inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 651616)<br>• uHTS identification of inhibitors of cullin neddylation in a TR-FRET assay (AID 651699)<br>• Counterscreen for inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis: Fluroescence-based biochemical high throughput Glycerophosphate Dehydrogenase-Triosephosphate Isomerase (GDH-TPI) assay to identify assay artifacts (AID 652141)<br>• qHTS for Inhibitors of KCHN2 3.1: Mutant qHTS (AID 720553) |
| BRD-A20185529-001-05-3<br>MLS000730302<br>HMS2766K06<br>SMR000308578<br>EU-0057391<br>PubChem CID : 15996185 |  | NA (in 1 replicates) | 0.71 | NA |  |  |  | Total number of assays tested in: 638. Active in the following assays:<br>• Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 MEK Kinase 2 mutant (AID 1530)<br>• Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 binding to MEK Kinase 2 Wildtype (AID 1531)<br>• qHTS Assay for Activators of Human alpha-Glucosidase as a Potential Chaperone Treatment of Pompe Disease (AID 2242)<br>• 384-well Z-Lyte format Hck-Nef inhibitor HTS run at the PMLSC (AID 463187)<br>• Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504832)<br>• Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 96 hour incubation (AID 504834)<br>• A quantitative high throughput screen for small molecules that induce DNA re-replication in MCF 10a normal breast cells. (AID 624296)<br>• qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in absence of CPT (AID 686978)<br>• qHTS for Inhibitors of Inflammasome Signaling: IL-1-beta AlphaLISA Primary Screen (AID 743279) |
| BRD-K62269054-001-01-4<br>PubChem CID : 54641204 |  | NA (in 1 replicates) | 0.70 | NA |  |  |  | Total number of assays tested in: 37. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BRD-K13145947-001-05-8<br>BAS 07778938<br>AC1LLV0M<br>MLS000527848<br>HMS2165L24<br>HMS3311K20<br>STL336981<br>ZINC18189276<br>SMR000120422<br>PubChem CID : 1090776 |  | NA (in 1 replicates) | 0.69 | NA |  |  |  | Total number of assays tested in: 682. Active in the following assays:<br>• Luminescent assay for HTS discovery of chemical activators of placental alkaline phosphatase (AID 696)<br>• qHTS Assay for Inhibitors of HPGD (15-Hydroxyprostaglandin Dehydrogenase) (AID 894)<br>• uHTS of Mcl-1/Noxa interaction inhibitors (AID 1022)<br>• qHTS Assay for Inhibitors of Bacillus subtilis Sfp phosphopantetheinyl transferase (PPTase) (AID 1490)<br>• uHTS absorbance assay for the identification of compounds that inhibit PHOSPHO1 (AID 1565)<br>• A biochemical assay using the ADP-Hunter methodology, purified TAg, and ATP to identify compounds that inhibit the ATPase activity of Tag - Counter Screen (AID 2501)<br>• Luminescence-based primary cell-based high throughput screening assay to identify inhibitors of the orphan nuclear receptor subfamily 0, group B, member 1 (DAX1; NR0B1) (AID 504766)<br>• HTS for suppressors of simvastatin-induced mytoxicity in differentiated C2C12 cells Measured in Cell-Based System Using Plate Reader - 2112-01_Suppressor_SinglePoint_HTS_Activity (AID 602340)<br>• Primary cell-based high-throughput screening for identification of compounds that activate/potentiate calcium-activated chloride channels (TMEM16A) (AID 623877)<br>• qHTS of D3 Dopamine Receptor Antagonist: qHTS (AID 652054)<br>• qHTS for Inhibitors of phosphatidylinositol 5-phosphate 4-kinase (PI5P4K) (AID 652105)<br>• Development of Small Molecule Probes of the Histone Methyltransferase, NSD2 Measured in Biochemical System Using Plate Reader - 7053-01_Inhibitor_SinglePoint_HTS_Activity_Set2 (AID 743445) |
| BRD-K90692821-001-05-6<br>STK632947<br>BAS 00898395<br>AC1LCOWB<br>MLS000031732<br>HMS2299B24<br>ZINC8716787<br>ZINC08716787<br>SMR000009689<br>PubChem CID : 653661 |  | NA (in 1 replicates) | 0.69 | NA |  |  |  | Total number of assays tested in: 776. Active in the following assays:<br>• qHTS Assay for Inhibitors of HADH2 (Hydroxyacyl-Coenzyme A Dehydrogenase, Type II) (AID 886)<br>• qHTS Assay for Inhibitors of HSD17B4, hydroxysteroid (17-beta) dehydrogenase 4 (AID 893)<br>• qHTS Assay for Activators of ClpP (AID 651965) |
| BRD-K78246835-001-01-0<br>PubChem CID : 54641306 |  | NA (in 1 replicates) | 0.69 | NA |  |  |  | Total number of assays tested in: 38. Active in the following assays:<br>• MLPCN SirT-5 Measured in Biochemical System Using Imaging - 7044-01_Inhibitor_SinglePoint_HTS_Activity_Set5 (AID 652115) |
| BRD-K18001731-001-01-7<br>PubChem CID : 54646091 |  | NA (in 1 replicates) | 0.69 | 0.742 |  |  |  | Total number of assays tested in: 41. |
| BRD-K39858575-001-05-5<br>ZINC00481288<br>AC1LICN6<br>MLS000701602<br>HMS2588K19<br>ZINC481288<br>SMR000226867<br>PubChem CID : 901918 |  | 0.87 (in 4 replicates) | -0.69 | 0.288 |  |  |  | Total number of assays tested in: 645. Active in the following assays:<br>• Primary cell-based high throughput screening assay to measure STAT1 activation (AID 932)<br>• qHTS Assay for Enhancers of SMN2 Splice Variant Expression (AID 1458)<br>• MLPCN Alpha-Synuclein 5'UTR - 5'-UTR binding - activators (AID 1814)<br>• qHTS Assay for Modulators of miRNAs and/or Inhibitors of miR-21 (AID 2289)<br>• Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314)<br>• A qHTS for Small Molecule Inhibitors of Shiga Toxin (AID 2315)<br>• Primary cell-based high-throughput screening assay for identification of compounds that inhibit regulator of G-protein signaling 4 (RGS4) (AID 463165)<br>• Validation assay for identification of compounds that inhibit the regulator of G-protein signaling 4 (RGS4) (AID 492999)<br>• Luminescence-based primary cell-based high throughput screening assay to identify inhibitors of the orphan nuclear receptor subfamily 0, group B, member 1 (DAX1; NR0B1) (AID 504766)<br>• qHTS profiling assay for firefly luciferase inhibitor/activator using purifed enzyme and Km concentrations of substrates (counterscreen for miR-21 project) (AID 588342)<br>• qHTS Assay to Identify Small Molecule Activators of BRCA1 Expression (AID 624202) |
| BRD-A09115727-001-05-5<br>AC1MJ6Y4<br>MLS000106846<br>HMS1613C12<br>HMS2483B22<br>CCG-8375<br>BAS 00443100<br>SMR000111222<br>PubChem CID : 3107523 |  | 0.79 (in 4 replicates) | -0.69 | 0.090 |  |  |  | Total number of assays tested in: 773. Active in the following assays:<br>• HTS to identify inhibitors of TNF-alpha Induced Cell Death in Jurkat FADD-/- Cells. (AID 463075)<br>• Identify inhibitors of TNF-alpha Induced Cell Death in Jurkat FADD-/- Cells: Confirmation Assay (AID 463178)<br>• Confirmation Assay for Identification of Novel General Anesthetics (AID 489008)<br>• Fluorescence polarization-based cell-based primary high throughput screening assay to identify activators of insulin-degrading enzyme (IDE) (AID 493087) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BRD-A57762296-001-05-6<br>AC1NMVVZ<br>MLS000698218<br>HMS2519I13<br>STL400806<br>SMR000227890<br>ST50709480<br>PubChem CID : 5016927 |  | 0.72 (in 4 replicates) | -0.67 | 0.214 |  |  |  | Total number of assays tested in: 641. Active in the following assays:<br>• uHTS luminescence assay for the identification of compounds that inhibit NOD1 (AID 1578)<br>• Fluorescence polarization-based primary biochemical high throughput screening assay to identify inhibitors of the plasma platelet activating factor acetylhydrolase (pPAFAH) (AID 463082)<br>• HTS Assay for Allosteric Antagonists of the Human D2 Dopamine Receptor: Primary Screen for Antagonists (AID 485344) |
| BRD-K28756469-001-05-3<br>NSC283155<br>AC1Q1GVS<br>AC1L88IG<br>MLS000037904<br>HMS2375K08<br>ZINC3957330<br>STL326994<br>NSC-283155<br>H117<br>SMR000039669<br>26543P<br>PubChem CID : 323381 |  | 0.64 (in 3 replicates) | -0.65 | NA |  |  |  | Total number of assays tested in: 814. Active in the following assays:<br>• CYP2C9 Assay (AID 777)<br>• CYP2C19 Assay (AID 778)<br>• Assay for HTS of Gi/Go-linked GPCRs using mGluR8: Primary Screening (AID 488969)<br>• Primary cell-based screen for identification of compounds that inhibit the Choline Transporter (CHT) (AID 488975)<br>• Confirmatory screen for compounds that inhibit the Choline Transporter (CHT) (AID 493221)<br>• Dose responses of compounds that inhibit the Choline Transporter (CHT) - 5 point CRC (AID 504840)<br>• Dose responses of compounds that inhibit the Choline Transporter (CHT) - 10 point CRC (AID 588401)<br>• Activators of the GIRK family of Potassium Channels (GIRK1/2_Confirmatory) (AID 623911)<br>• Confirmed inhibitors of the Choline Transporter (CHT) (AID 1053196) |
| BRD-A64862239-001-05-5<br>AC1MLMUM<br>MLS000549745<br>HMS2501E09<br>ASN 05260372<br>SMR000173039<br>PubChem CID : 3197538 |  | NA (in 1 replicates) | -0.64 | NA |  |  |  | Total number of assays tested in: 661. Active in the following assays:<br>• CYP2C9 Assay (AID 777)<br>• CYP2C19 Assay (AID 778)<br>• qHTS Assay for Antagonists of the Neuropeptide S Receptor: cAMP Signal Transduction (AID 1461)<br>• uHTS for identification of Inhibitors of Mdm2/MdmX interaction in luminescent format. (AID 485346)<br>• uHTS fluorescent assay for identification of inhibitors of ATG4B (AID 504462)<br>• qHTS for inhibitors of binding or entry into cells for Marburg Virus (AID 540276)<br>• Single concentration counterscreen of uHTS hits for ATG4B inhibitors in a Phospholipase A2 assay (AID 588402) |
| BRD-K13587575-001-01-9<br>PubChem CID : 54637864 |  | 0.65 (in 3 replicates) | -0.63 | 0.926 |  |  |  | Total number of assays tested in: 43. |
| BRD-K47108422-001-01-9<br>PubCID : 56835486 |  | 0.64 (in 3 replicates) | -0.61 | 0.345 |  |  |  | Total number of assays tested in: 33. |
| BRD-K75207324-001-01-3<br>PubCID : 56835370 |  | 0.76 (in 3 replicates) | -0.61 | 0.952 |  |  |  | Total number of assays tested in: 33. |
| BRD-K90956468-001-05-3<br>STK208640<br>ZINC01079713<br>AC1LOOVS<br>MLS000684100<br>HMS2735H22<br>ZINC1079713<br>SMR000295729<br>PubChem CID : 1266802 |  | 0.63 (in 4 replicates) | -0.61 | 0.084 |  |  |  | Total number of assays tested in: 636. Active in the following assays:<br>• QFRET-based primary biochemical high throughput screening assay to identify inhibitors of the Plasmodium falciparum M18 Aspartyl Aminopeptidase (PFM18AAP). (AID 1822)<br>• qHTS for inhibitors of ROR gamma transcriptional activity (AID 2551) |

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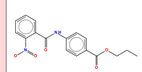
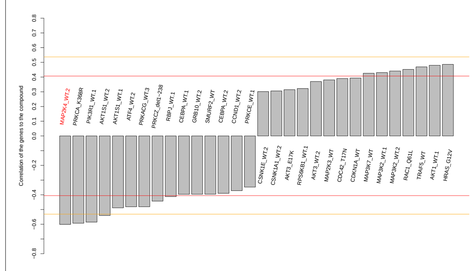
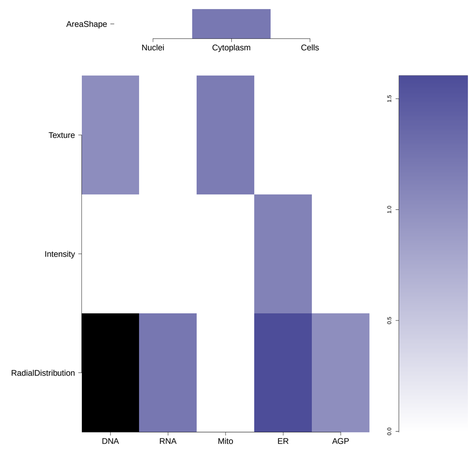
|---|---|---|---|---|---|---|---|---|
| BRD-K47972240-001-05-9<br>ST50921582<br>BAS 00623732<br>MLS000709075<br>AC1M298U<br>HMS2669J16<br>CCG-7158<br>ZINC2745420<br>STK414109<br>ZINC02745420<br>SMR000282942<br>KB-104881<br>EU-0036221<br>PubChem CID : 2164898 |  | NA (in 1 replicates) | -0.60 | NA |  |  |  | Total number of assays tested in: 632. Active in the following assays:<br>• Aqueous Solubility from MLSMR Stock Solutions (AID 1996)<br>• Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314)<br>• A qHTS for Small Molecule Inhibitors of Shiga Toxin (AID 2315)<br>• Primary cell-based screen for identification of compounds that inhibit the two-pore domain potassium channel KCNK9 (AID 488922)<br>• Confirmatory screen for identification of compounds that inhibit the two-pore domain potassium channel (KCNK9) (AID 492992)<br>• Primary cell-based screen for identification of compounds that inhibit the two-pore domain potassium channel KCNK3 (AID 602410)<br>• Confirmation assay for identification of compounds that inhibit the two-pore domain potassium channel KCNK3 [Primary Screening] (AID 651638)<br>• Small Molecule Inhibitors of FGF22-Mediated Excitatory Synaptogenesis and Epilepsy Measured in Biochemical System Using RT-PCR - 7012-01_Inhibitor_SinglePoint_HTS_Activity (AID 651658) |