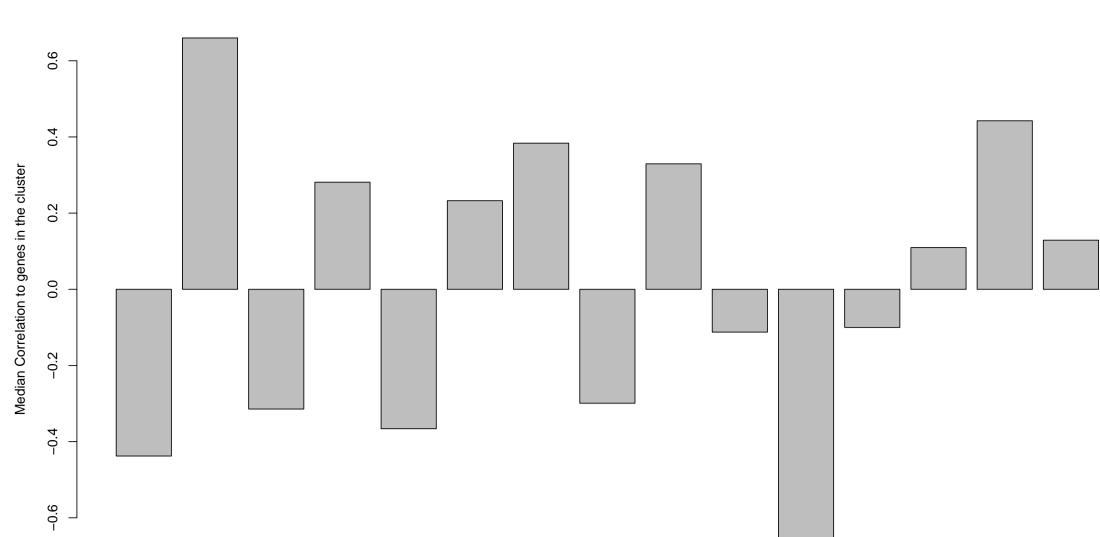
How similar is this cluster to the other clusters?

Genes in the cluster along with the pathways as annotated by experts

	Expert Annotation			
Treatment	Pathway	Regulation Type		
ATF4_WT.2	Canonical ER Stress/UPR	Activator		
MAP2K4_WT.2	Canonical MAPK	Activator		
PIK3R1_WT.1	Canonical PI3K/AKT	Activator		
PRKCA_K368R	Canonical PKC	Inhibitor		
AKT1S1_WT.1	TOR	Inhibitor		
AKT1S1_WT.2	TOR	Inhibitor		

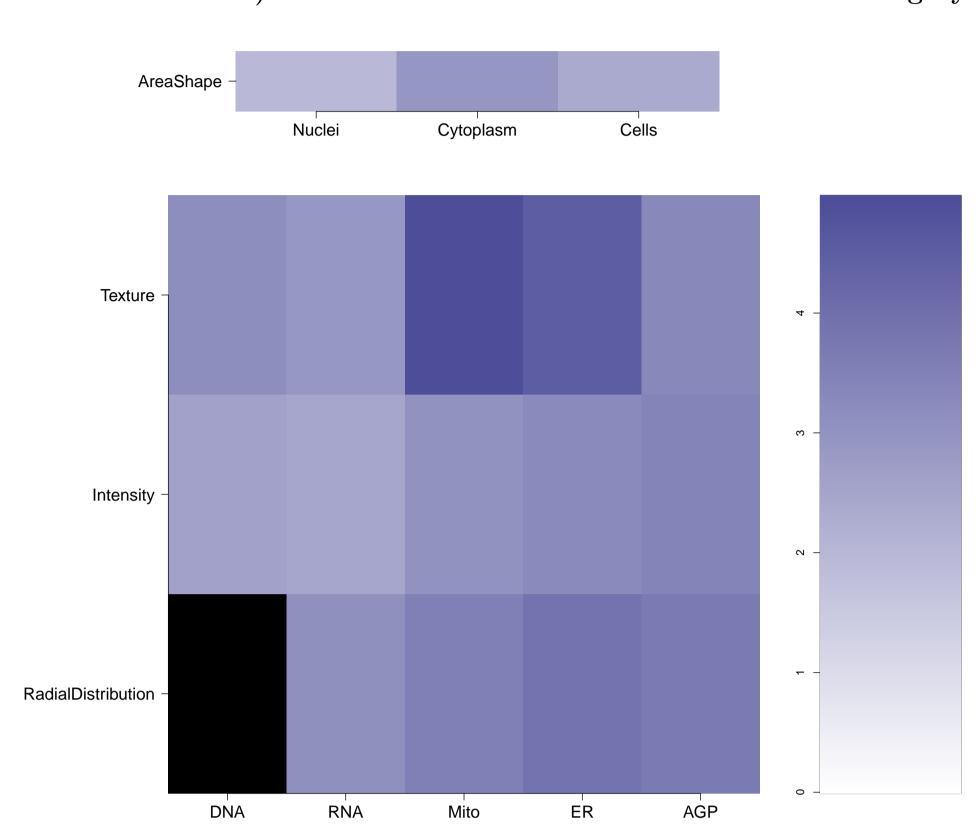


AKT1_E17K AKT1_S1_WT.1 BRAF_WT.1 CCND1_WT.1 CDKN1A_WT CEBPA_WT.1 CSNK1A1_WT.3 CXXC4_WT DVL3_WT GLI1_WT MAP3K2_WT.1 MYD88_L265P PRKCZ_K281R RBPJ_WT.1 WWTR1_WT AKT3_E17K AKT1S1_WT.2 BRAF_WT.2 CCND1_WT.2 HRAS_G12V CEBPA_WT.2 MAPKAP1_WT STK3_WT.1 TGFBR1_K232R PRKACA_WT.1 MAP3K2_WT.2 MYD88_WT PRKCZ_WT.1 RBPJ_WT.2 YAP1_WT.1 AKT3_WT.2 AT4_WT.2 MOS_WT.1 E2F1_WT KRAS_G12V JUN_WT.1 SGK3_WT.2 STK3_WT.2 TGFBR1_WT.2 PRKACA_WT.2 TRAF5_WT SDHA_WT PRKCZ_WT.2 SMAD3_WT.1 YAP1_WT.2 PRKACA_WT.2 TRAF5_WT SDHA_WT PRKCZ_WT.2 SMAD3_WT.1 YAP1_WT.2 PRKACA_WT.2 TRAF5_WT SDHA_WT PRKCZ_WT.2 SMAD3_WT.1 YAP1_WT.2 PRKACA_WT.1 MAP3K4_WT.1 PRKCA_K368R RAF1_WT.1 MAP3K4_WT.1 MAP3K4_WT.1 MAP3K4_WT.1 MAP3K4_WT.1 MAP3K4_WT.1 MAP3K5_WT

Top 5 genes	negatively	correlated	\mathbf{to}	the	cluster

	Expert Ann			
Treatment	Pathway	Regulation Type	Mean Correlation	Standard Deviation
MAP3K2_WT.1	Canonical MAPK	Activator	-0.71	0.07
MAP3K2_WT.2	Canonical MAPK	Activator	-0.71	0.07
PIK3CB_WT.2	Canonical PI3K/AKT	Activator	-0.63	0.10
$TRAF5_WT$	Canonical NFkB	Activator	-0.57	0.02
$AKT3_WT.2$	Canonical PI3K/AKT	Activator	-0.53	0.06

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 cluster relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

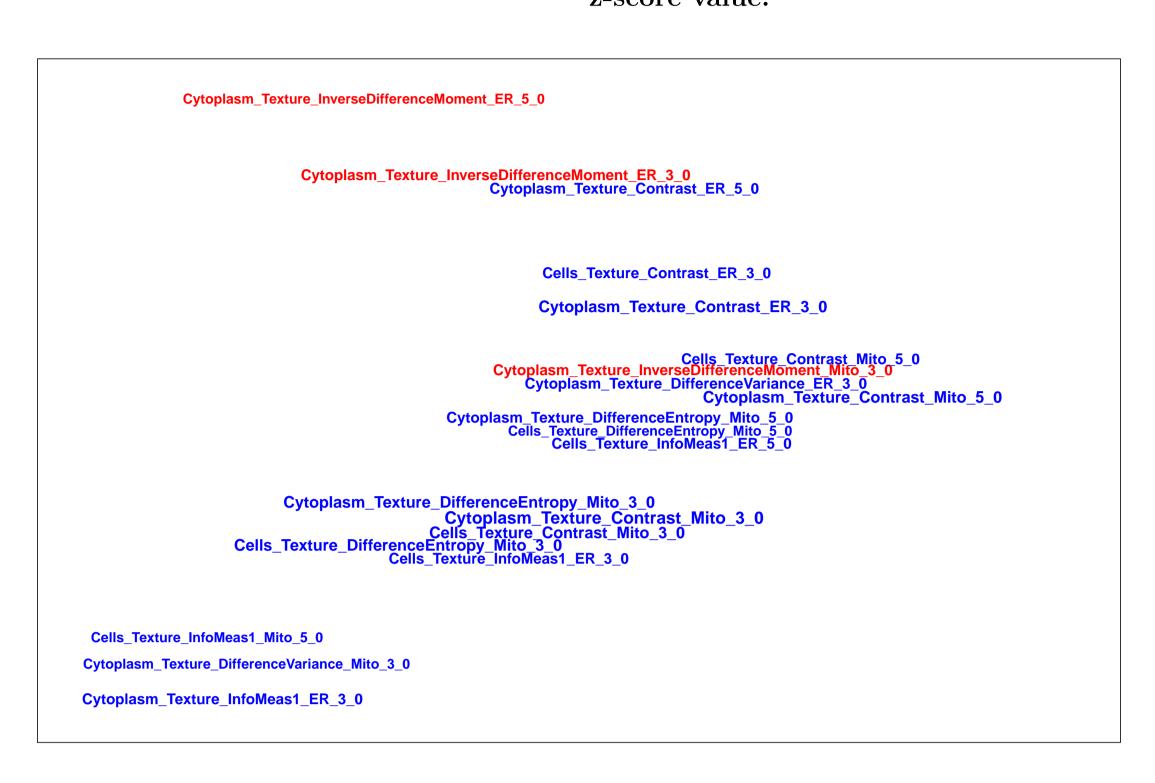
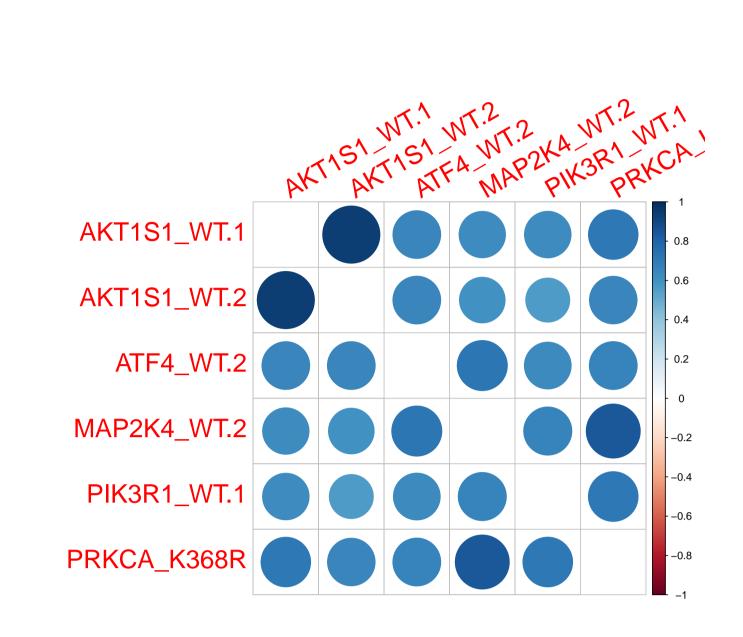
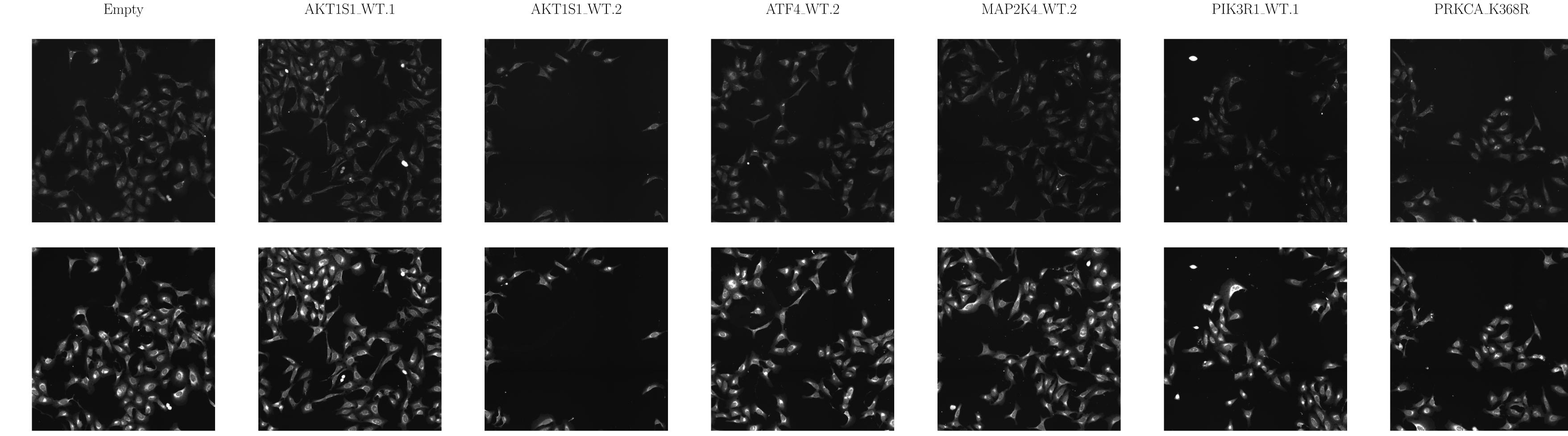


Plate: 41744 - Genes in the Cluster (Channels are sorted based on their dominance in the grid plot)

How strongly are genes within the cluster correlated?





ER								
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 0.54)	Mean ± standard deviation correlation between compound and each gene in cluster; Tables contain data for individual genes	using L1000	How similar is the compound signature to the gene clusters in	Common distinguishing feature categories in the compound	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 cluster	the compound was tested: assays in
BRD-K59496950-001-06-2 SMR000008290 AC1LDHEO ASN 08222509 MLS000068187 MLS002538128 HMS2502P09 ZINC1337997 ZINC01337997 PubChem CID: 648117		NA (in 1 replicates)	0.68 ± 0.05 Treatment Score AKT1S1_WT.1 0.65 AKT1S1_WT.2 0.64 ATF4_WT.2 0.65 MAP2K4_WT.2 0.77 PIK3R1_WT.1 0.69 PRKCA_K368R 0.69	NA	Model Control of State 8 in the closure of the compound of the	AreaShape - Nuclei Cytoplasm Cells Texture - Intensity - RadialDistribution - DNA RNA Mito ER AGP	Cells_Intensity_UpperQuartileIntensity_DNA Cytoplasm_Texture_DifferenceVariance_AGP_5_0 Cells_Texture_DifferenceVariance_AGP_5_0 Cells_Texture_Intensity_Texture_DifferenceVariance_AGP_5_0 Cells_Texture_DifferenceVariance_AGP_5_0 Cells_Texture_DifferenceVariance_AGP_5_0 Cells_RadialDistribution_RadialCV_RNA_364 Cells_RadialDistribution_RadialCV_AGP_2014 Cells_RadialDistribution_RadialCV_AGP_3014 Cells_RadialDistribution_RadialCV_AGP_3014 Cells_RadialDistribution_RadialCV_AGP_3014 Cytoplasm_Texture_Variance_RNA_0.0_0 Cytoplasm_AreaShape_FormFactor Cells_RadialDistribution_FracAD_ER_3614 Nuclet_Texture_DifferenceVariance_AGP_3.0 Cytoplasm_Texture_DifferenceEntropy_Mito_5_0 Cytoplasm_Texture_DifferenceEntropy_Mito_5_0	Total number of assays tested in: 762. Active in the following assays: • Luminescence Cell-Based Primary HTS to Identify Transcriptional Activators of Hypoxia-Inducible Factor Pathway (AID 1910) • qHTS Inhibitors of AmpC Beta-Lactamase (assay with detergent) (AID 485294)
BRD-A04599535-003-05-3 SMR000004833 AC1O7EWO MLS000029919 MLS002534451 PubChem CID: 6602651		NA (in 1 replicates)	0.66 ± 0.06 Treatment Score AKT1S1_WT.1 0.67 AKT1S1_WT.2 0.65 ATF4_WT.2 0.62 MAP2K4_WT.2 0.74 PIK3R1_WT.1 0.70 PRKCA_K368R 0.57	NA	Mean Department of general in the compound of general in the control o	AreaShape - Nuclei Cytoplasm Cells Texture - Intensity - RadialDistribution - DNA RNA Mito ER AGP	Cells_Intensity_UpperQuartileIntensity_DNA Cells_Texture_Correlation_RNA_3_0 Cells_Texture_InfoMeas2_ER_5_0 Cells_Texture_InfoMeas2_ER_5_0 Cells_AreaShape_Area Cyopiasm_Texture_AngularSecondMominet_AGP_3_DP_Area Cells_RadialDistribution_RadialCV_RNA_3of4 Cells_RadialDistribution_RadialCV_AGP_3of4 Cells_RadialDistribution_RadialCV_AGP_3of4 Cells_RadialDistribution_RadialCV_AGP_3of4 Cells_RadialDistribution_FracAtD_ER_3of4 Cytoplasm_AreaShape_FormFactor Nuclei_Intensity_IntegratedIntensity_ER Cytoplasm_AreaShape_Solidity Cytoplasm_AreaShape_Solidity Cytoplasm_AreaShape_Solidity Cytoplasm_AreaShape_Compactness	Total number of assays tested in: 752. Active in the following assays: • CYP2C19 Assay (AID 778) • qHTS Assay for Agonists of the Thyroid Stimulating Hormone Receptor: Activators of Intracellular cAMP Concentrations in Parental HEK 293 (AID 938) • uHTS of Mcl-1/Bid interaction inhibitors (AID 1021) • Fluorescence-based primary cell-based high throughput screening assay to identify antagonists of the G-protein coupled receptor 7 (GPR7). (AID 1861)

