FIG. 1A

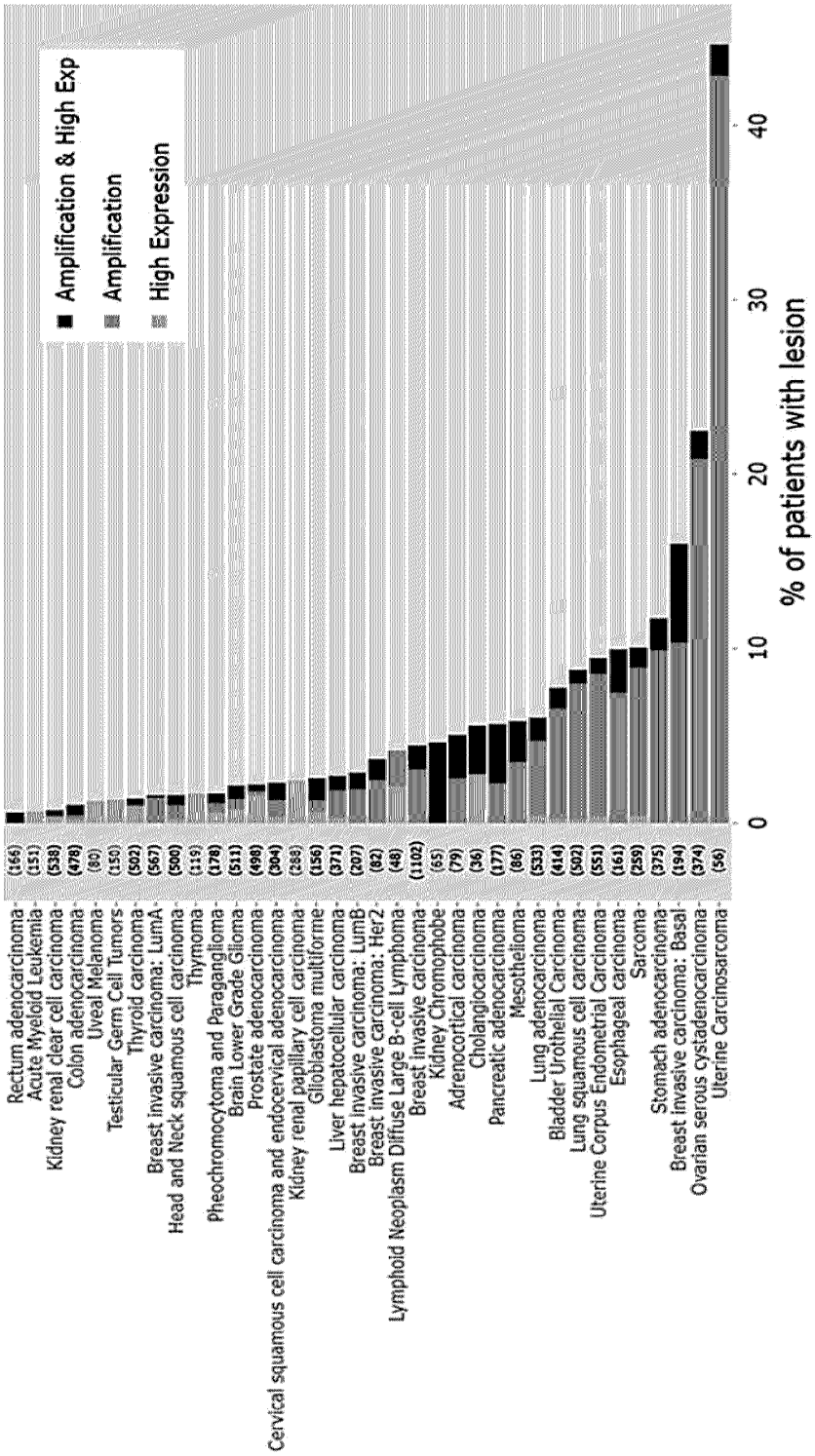

Amplification & High Exp
Amplification
High Expression
% of patients with lesion
0
10
20
30
40
Rectum adenocarcinoma (156)
Acute Myeloid Leukemia (151)
Kidney renal clear cell carcinoma (538)
Colon adenocarcinoma (478)
Uveal Melanoma (80)
Testicular Germ Cell Tumors (150)
Thyroid carcinoma (502)
Breast invasive carcinoma: LumA (567)
Head and Neck squamous cell carcinoma (500)
Thymoma (118)
Pheochromocytoma and Paraganglioma (178)
Brain Lower Grade Glioma (511)
Prostate adenocarcinoma (498)
Cervical squamous cell carcinoma and endocervical adenocarcinoma (304)
Kidney renal papillary cell carcinoma (288)
Glioblastoma multiforme (156)
Liver hepatocellular carcinoma (371)
Breast invasive carcinoma: LumB (207)
Breast invasive carcinoma: Her2 (82)
Lymphoid Neoplasm Diffuse Large B-cell Lymphoma (48)
Breast invasive carcinoma (1102)
Kidney Chromophobe (65)
Adrenocortical carcinoma (79)
Cholangiocarcinoma (36)
Pancreatic adenocarcinoma (177)
Mesothelioma (86)
Lung adenocarcinoma (533)
Bladder Urothelial Carcinoma (414)
Lung squamous cell carcinoma (502)
Uterine Corpus Endometrial Carcinoma (551)
Esophageal carcinoma (161)
Sarcoma (259)
Stomach adenocarcinoma (375)
Breast invasive carcinoma: Basal (194)
Ovarian serous cystadenocarcinoma (374)
Uterine Carcinosarcoma (56)

FIG. 1B

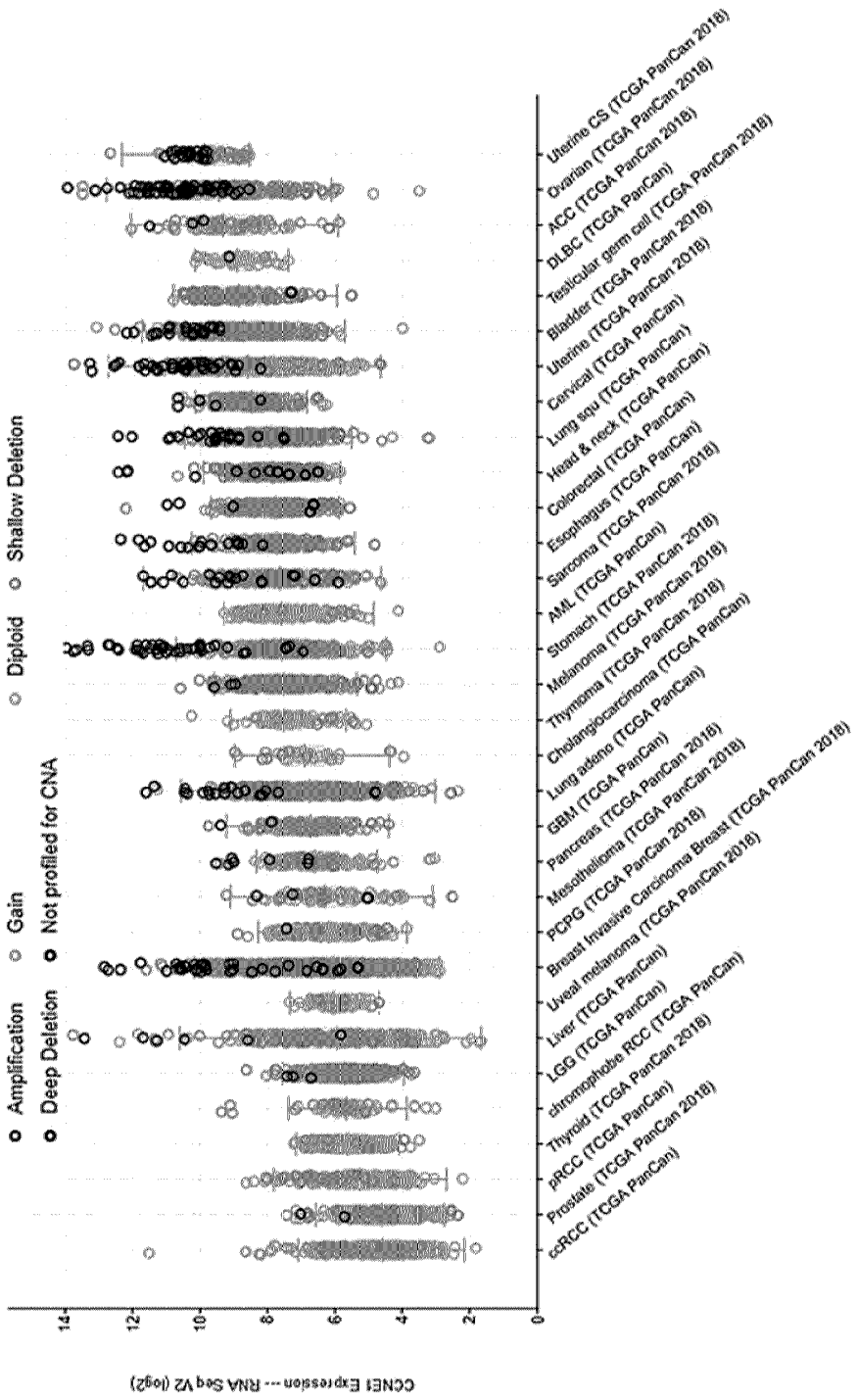

Amplification
Deep Deletion
Gain
Not profiled for CNA
Diploid
Shallow Deletion
CCNE1 Expression -- RNA Seq V2 (log2)
14
12
10
8
6
4
2
0
Uterine CS (TCGA PanCan 2018)
Ovarian (TCGA PanCan 2018)
ACC (TCGA PanCan)
DLBC (TCGA PanCan)
Testicular germ cell (TCGA PanCan 2018)
Bladder (TCGA PanCan 2018)
Uterine (TCGA PanCan)
Cervical (TCGA PanCan)
Lung squ (TCGA PanCan)
Head & neck (TCGA PanCan)
Colorectal (TCGA PanCan)
Esophagus (TCGA PanCan 2018)
Sarcoma (TCGA PanCan)
AML (TCGA PanCan 2018)
Stomach (TCGA PanCan 2018)
Melanoma (TCGA PanCan 2018)
Thymoma (TCGA PanCan)
Cholangiocarcinoma (TCGA PanCan)
Lung adeno (TCGA PanCan)
GBM (TCGA PanCan 2018)
Pancreas (TCGA PanCan 2018)
Mesothelioma (TCGA PanCan 2018)
PCPG (TCGA PanCan 2018)
Breast Invasive Carcinoma Breast (TCGA PanCan 2018)
Uveal melanoma (TCGA PanCan 2018)
Liver (TCGA PanCan)
LGG (TCGA PanCan)
chromophobe RCC (TCGA PanCan)
Thyroid (TCGA PanCan 2018)
pRCC (TCGA PanCan)
Prostate (TCGA PanCan 2018)
ccRCC (TCGA PanCan)

FIG. 2A

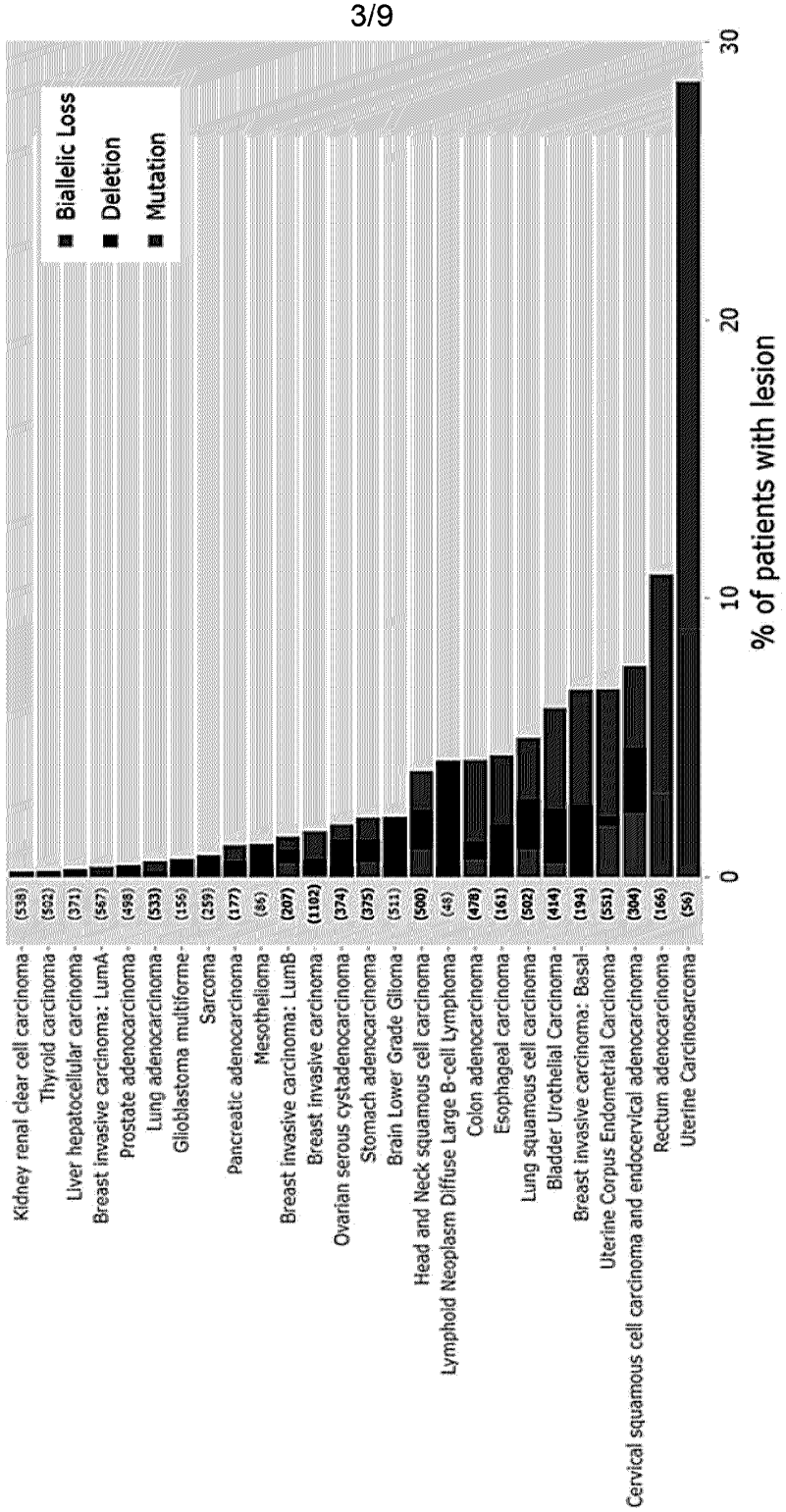

Biallelic Loss
Deletion
Mutation
0
10
20
30
% of patients with lesion
Kidney renal clear cell carcinoma (538)
Thyroid carcinoma (502)
Liver hepatocellular carcinoma (371)
Breast invasive carcinoma: LumA (567)
Prostate adenocarcinoma (498)
Lung adenocarcinoma (533)
Glioblastoma multiforme (156)
Sarcoma (259)
Pancreatic adenocarcinoma (177)
Mesothelioma (86)
Breast invasive carcinoma: LumB (207)
Breast invasive carcinoma (1102)
Ovarian serous cystadenocarcinoma (374)
Stomach adenocarcinoma (375)
Brain Lower Grade Glioma (511)
Head and Neck squamous cell carcinoma (500)
Lymphoid Neoplasm Diffuse Large B-cell Lymphoma (48)
Colon adenocarcinoma (478)
Esophageal carcinoma (161)
Lung squamous cell carcinoma (502)
Bladder Urothelial Carcinoma (414)
Breast invasive carcinoma: Basal (194)
Uterine Corpus Endometrial Carcinoma (551)
Cervical squamous cell carcinoma and endocervical adenocarcinoma (304)
Rectum adenocarcinoma (166)
Uterine Carcinosarcoma (56)

FIG. 2B

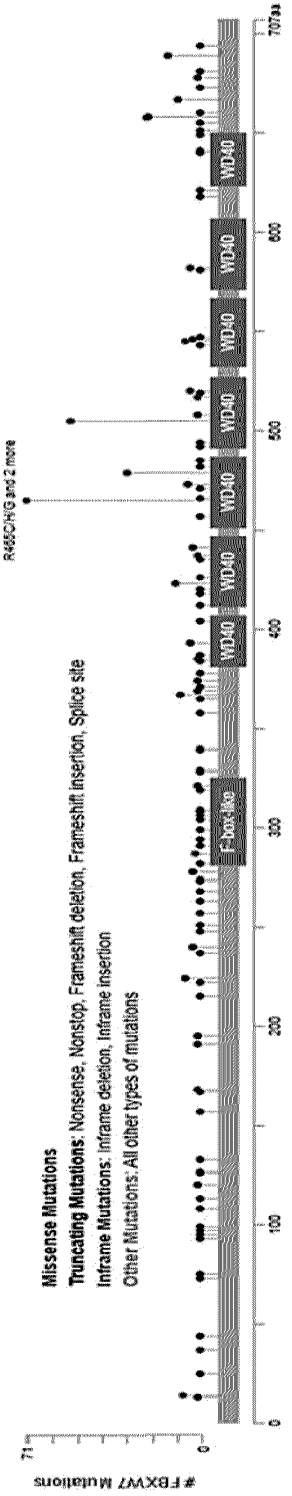

Missense Mutations
Truncating Mutations: Nonsense, Nonstop, Frameshift deletion, Frameshift insertion, Splice site
Inframe Mutations: Inframe deletion, Inframe insertion
Other Mutations: All other types of mutations
R465C/H/G and 2 more
F-box-like
WD40
FBXW7 Mutations
0
100
200
300
400
500
600
707aa
71

FIG. 3A

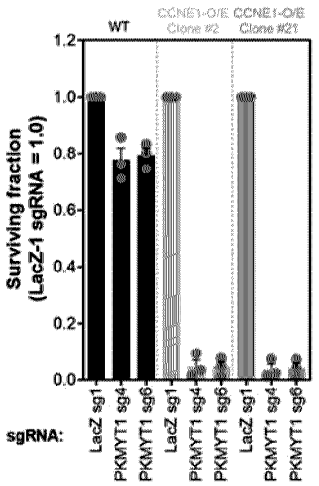


FIG. 3B

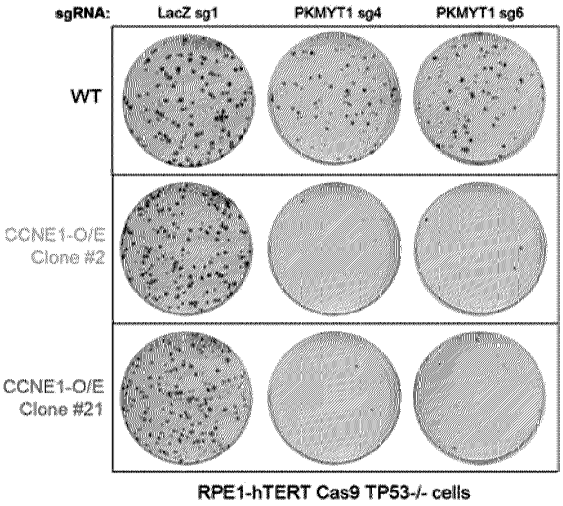


FIG. 3C

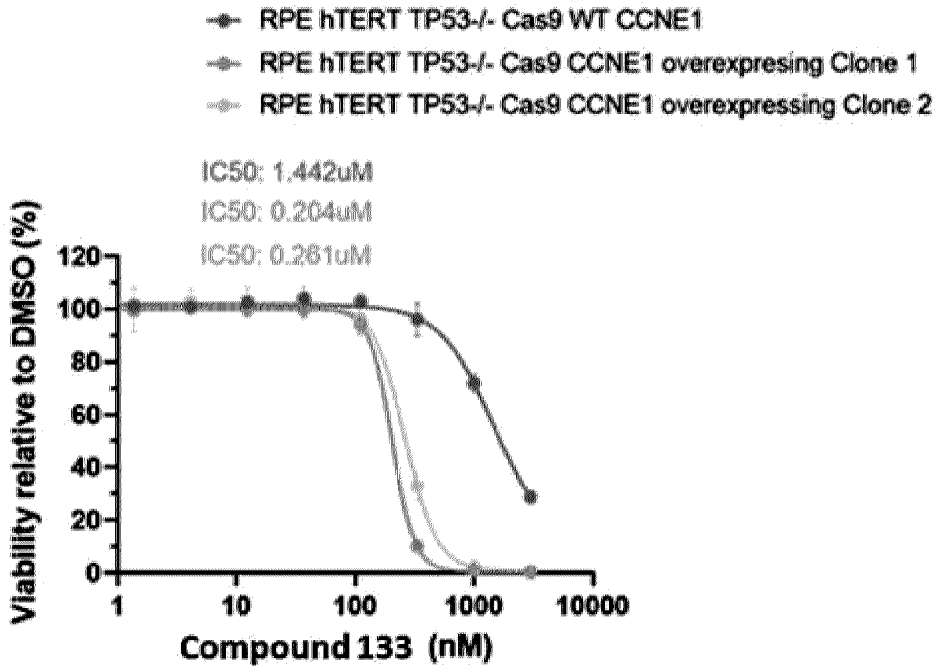


FIG. 4A

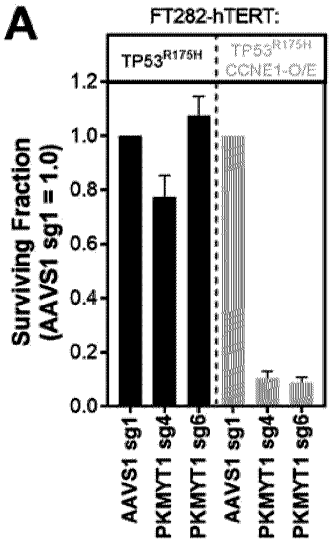


FIG. 4B

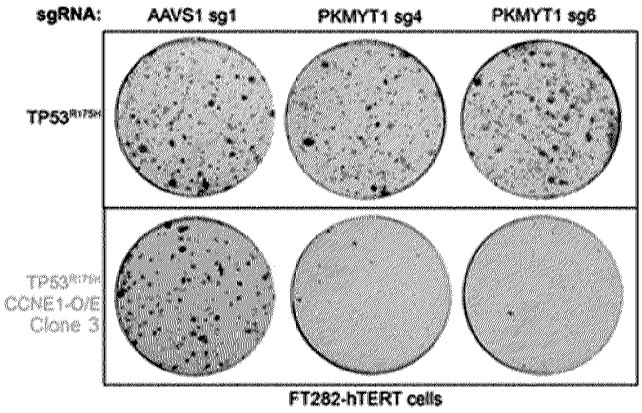


FIG. 4C

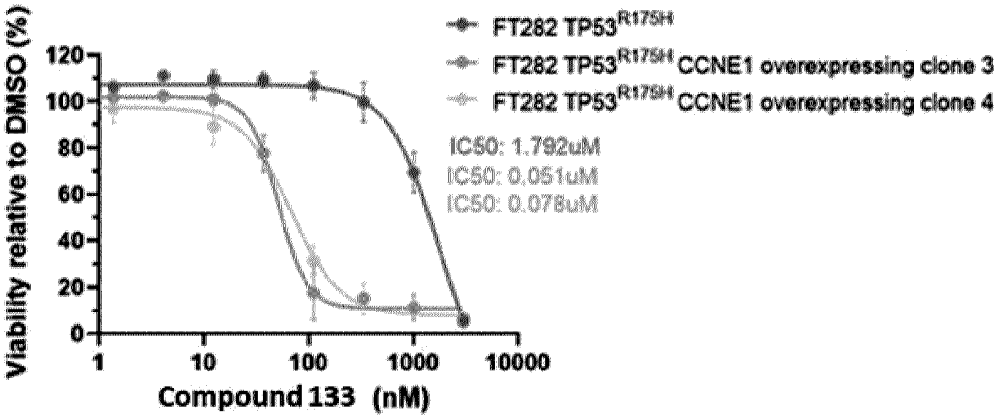


FIG. 5A

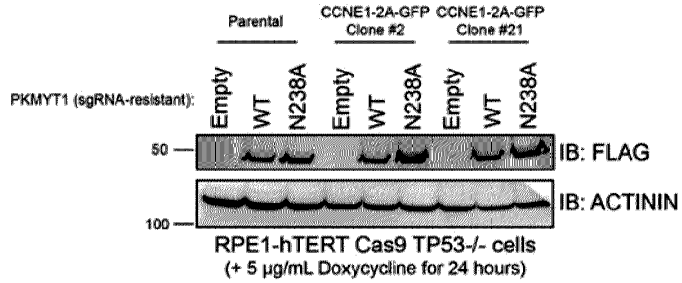


FIG. 5B

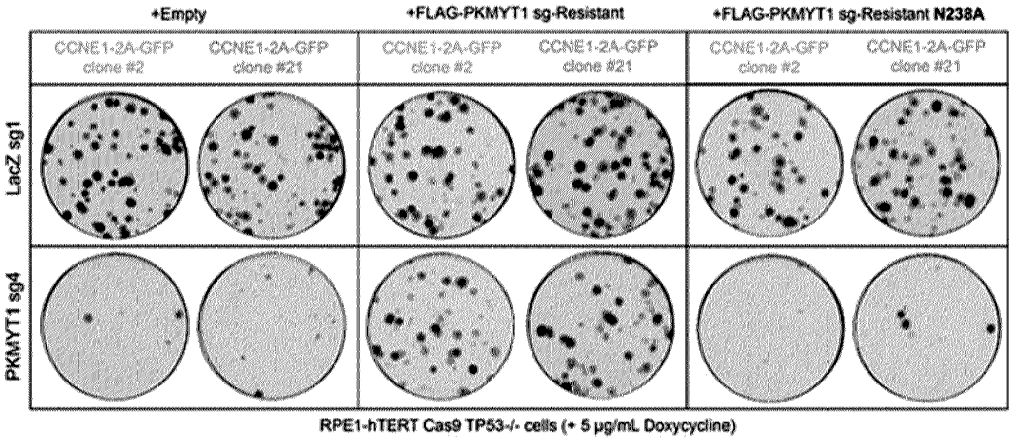


FIG. 5C

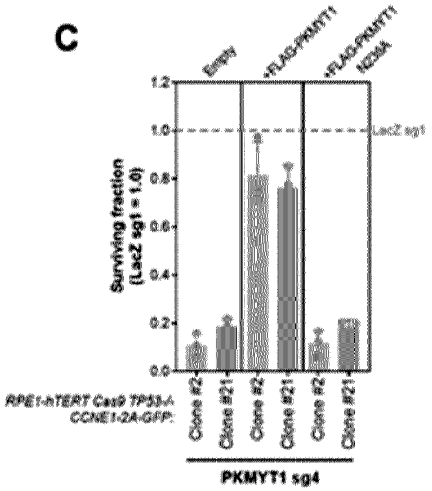


FIG. 6

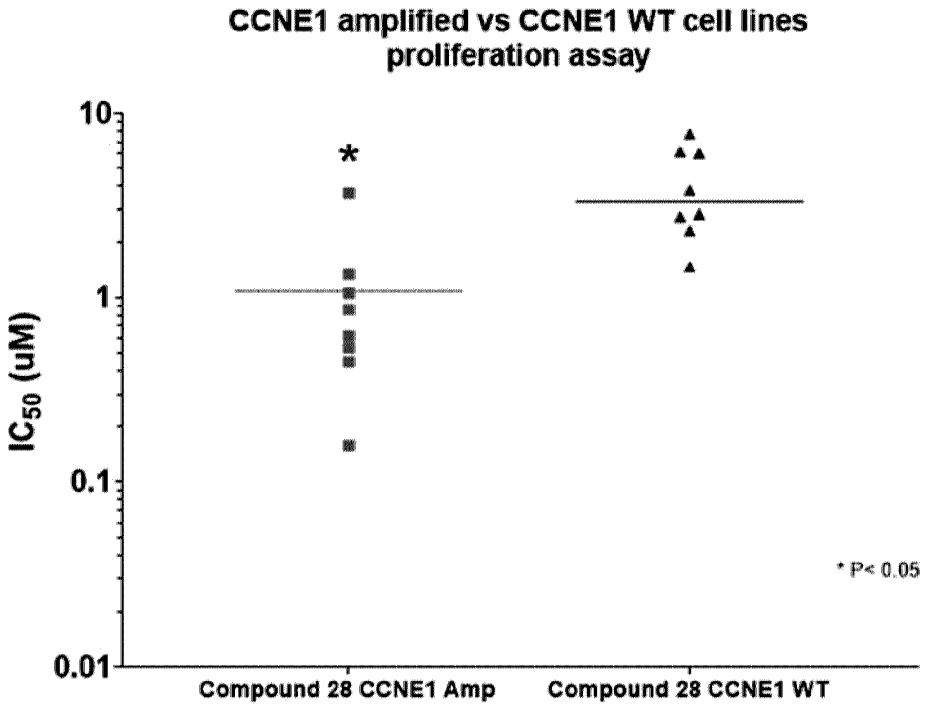
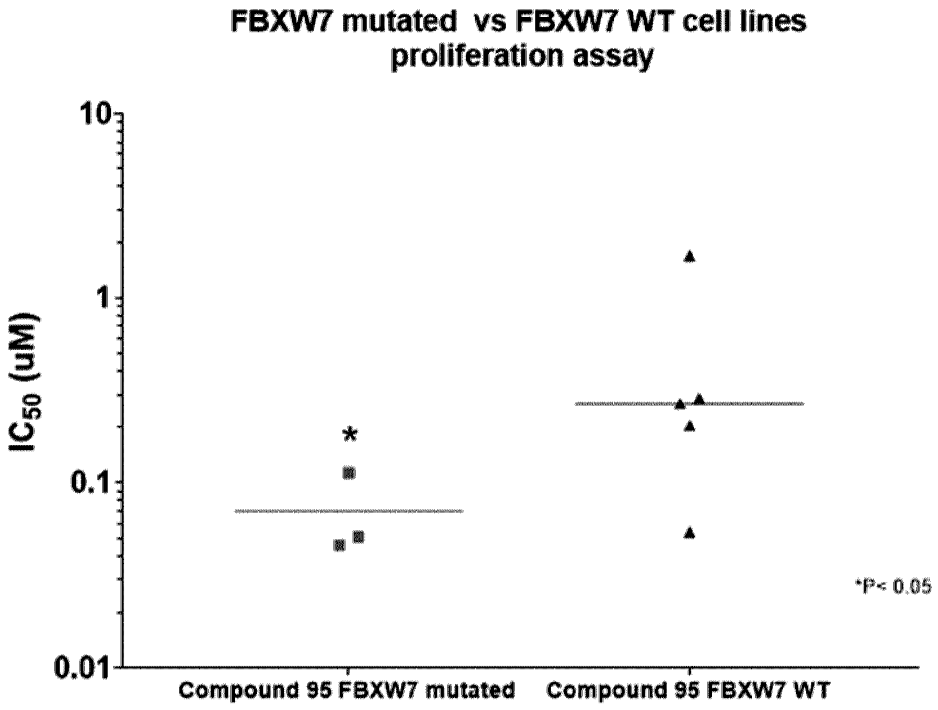

CCNE1 amplified vs CCNE1 WT cell lines proliferation assay
10
1
0.1
0.01
IC50 (uM)
*
* P< 0.05
Compound 28 CCNE1 Amp
Compound 28 CCNE1 WT

FIG. 7


FBXW7 mutated vs FBXW7 WT cell lines proliferation assay
10
1
0.1
0.01
IC50 (uM)
*
*P< 0.05
Compound 95 FBXW7 mutated
Compound 95 FBXW7 WT