Materials and Methods

Cell lines, media, and reagents. Human A549 cells (ATCC® CCL-185TM), validated by STR analysis at the University of Pennsylvania, were cultured in RPMI 1640 medium (Gibco, ThermoFisher Scientific), supplemented with 10% fetal bovine serum (FBS), 100 U/ml penicillin and 100 µg/ml streptomycin. HME cells, purchased from Clonetech and authenticated by STR analysis at Genetica DNA Labs (compared to ATCC CRL-4010) were cultured with mammary epithelial cell growth medium (MEGM, Lonza CC-3150). Human recombinant IFN- β (200–400 X 10⁶ international units (IU)/mg; InterPharmLaboratories, was a gift from Ares-Serono, Rockland, MA).

Chemical Inhibitors. Valoneic acid dilactone (VAL), an RNase L inhibitor was provided by M. Talukar and F. Sicheri, Toronto. SP600125 and ZVAD-FMK were purchased from Santa Cruz Biotechnology.

Construction of gene knockout cells. The A549 RNase L KO, MAVS KO, ADAR1-MAVS DKO, ADAR1-RNase L DKO, and ADAR1-RNase L-MAVS TKO cells were described previously (1). The PDE12 KO, AKAP7 KO, PDE12-AKAP7 DKO A549 cells were generated by using the CRISPR Cas9 system. The sgRNA sequences were chosen from a published database (2). The guide RNA sequences were synthesized as DNA oligonucleotides by Integrated DNA Technologies. Primers were annealed, phosphorylated and ligated into the vector LentiCRISPR v2 (Addgene 52961, a gift from Feng Zhang) (3) that was prepared by digestion with BsmBI. The resulting plasmids were transformed into Stbl3 chemically competent E. *coli* (Invitrogen) and grown on a bacterial culture plate at 37°C. Colonies were screened by PCR using the U6 primer and gene specific reverse primer to generate an approximately 300 bp product. Positive clones were cultured and plasmid DNA was prepared and sequence verified using the U6 primer. The AKAP7 sgRNA sequences are: sgAKAP7_2 FW

CACCG TGAGC GACTG GCCAA AGCAA and sgAKAP7_2 REV AAACT TGCTT TGGCC AGTCG CTCA C. The PDE12 sgRNA sequences are: sgPDE12_10 FW CACCG GGATG CCTGG CAAGA CGGCG and sgPDE12_10 REV AAACC GCCGT CTTGC CAGGC ATCCC. Cell cloning was done by limited dilution. To obtain PDE12 and AKAP7 DKO cells, a PDE12 knockout A549 cell line was infected with pseudo lentivirus expressing sgRNA for AKAP7, followed by single cell cloning. Resulting clones were screened for knockout of expression by the Western method. Single OAS1,2,3 KO HME cell lines were reported by us previously (1), and RNase L KO HME cells and HME DKO and TKO cell lines were made by CRISPR Cas9 gene editing as described (1).

Immunoblotting. Prior to lysis, cells were washed twice in cold phosphatebuffered saline (PBS). Cell extracts were prepared with RIPA lysis buffer, supplemented with phosphatase/protease inhibitors, followed by incubation on ice for 20 min. Lysates were subjected to centrifugation at 12,000 x g for 10 min, the supernatant solutions were collected, and the protein was quantified by the Bradford assay (Bio-Rad Laboratories). Cell lysates (30-50 µg) were separated on 4-15% SDS PAGE gels (Bio-Rad Laboratories) and proteins were transferred to polyvinylidene difluoride membranes (0.45 µm) (Bio-Rad) and probed with antibodies according to the manufacturer's recommendations. Antibodies were against MAVS(Cat#3993S) (1:1000 dilution) and ADAR1(Cat#14175) 1:2000 dilution) (from Cell Signaling Technology), cleaved PARP1(Cat#9541S) (1:1000 dilution) (Cell Signaling Technology), Flag M2(1:5000 dilution) and ßactin(1:50,000 dilution) (Sigma-Aldrich). A monoclonal antibody against human RNase L was previously described by us (4). OAS1 (Cat# sc-374656), OAS2 (Cat#sc-99097) and OAS3 (Cat# sc-49870) were from Santa Cruz Biotechnology. Anti-PDE12 (Abcam ab87738)(1:1000 dilution) and anti-AKAP7 (Proteintech: Cat# 12591-1-AP)(1:5000 dilution) were used to screen for knockouts of the respective genes.

Cell death assay. Cells at 2×10^4 per well were seeded in 24-well plates (about 30-40% confluent) or 8×10^3 cells per well in 96-well plates (about 10% confluent). The cells were incubated with 250 nM Sytox-Green dye (Thermo Fisher), a nucleic acid stain that is an indicator of dead cells and that does not penetrate live cells, and 250 nM of cell-permeable dye SytoTM 60-Red (ThermoFisher), which allows quantification of the total number of cells present in each field, using an IncuCyte Live-Cell Imaging System and software (Essen Instruments 2015A) for up to 100 h. Cell death was measured by counting the number of cells per well (dead cells) which was then normalized to the total number of cells per well (red objects) at each time point, using IncuCyte software (version 2016B).

Caspase-3/7 assays. Cells were seeded in 96-well plates and incubated without or with AZA. The cells were incubated with IncuCyteTM Kinetic Caspase-3/7 Apoptosis Assay Reagent (green) according to the manufacturer's protocol for 24 h. The apoptotic index was determined by determining the total count [green Integrated Intensity (GCU x μ m²/Image)] and then normalizing by count confluence (percent) using IncuCyte software. To inhibit apoptosis, cells were treated with ZVAD-FMK (50 μ M).

IR. IR was generated with a J.L. Shepherd & Associates Mark 1 gamma irradiator containing Cesium-137.

Immunofluorescence. WT A549 cells were treated with 50 µM AZA for 48 h. Cells were fixed with 4% formaldehyde diluted in PBS for 15 min, washed three times with PBS and incubated in blocking buffer according to the manufacturer's protocol. J2 antibody against dsRNA (Cat#10010200) was purchased from Scicons. Cells were incubated with primary antibody solution (J2-antibody) overnight, washed three times with PBS, and incubated with 1:500 anti-mouse-Alexa 488-conjugated antibody for 2 h in the dark. After washing with PBS, coverslips containing cells were mounted on glass slides with Vectashield

(Vector Labs) mounting medium containing DAPI and observed with a confocal microscope.

Statistics. All p values are calculated by two-way ANOVA using Graphpad Prism 7 software.

References

- 1. Li Y, et al. (2016) Activation of RNase L is dependent on OAS3 expression during infection with diverse human viruses. Proc Natl Acad Sci U S A 113(8):2241-2246.
- 2. Wang T, Wei JJ, Sabatini DM, & Lander ES (2014) Genetic screens in human cells using the CRISPR-Cas9 system. Science 343(6166):80-84.
- 3. Sanjana NE, Shalem O, & Zhang F (2014) Improved vectors and genomewide libraries for CRISPR screening. Nat Methods 11(8):783-784.
- 4. Dong B & Silverman RH (1995) 2-5A-dependent RNase molecules dimerize during activation by 2-5A. J Biol Chem 270(8):4133-4137.

Supplementary Table and Figures

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IGR-OV1 Ovarian 31 4.121 1.086 52.5101 12.2045 27.7014 54.8027 130.813 76.7044 54.0027 130.813 76.7044 54.0027 130.813 76.7044 54.0027 130.813 76.3746 17.2045 27.704 54.305 56.8553 77.116 64.8220 66.8544 64.2033 LXXIMV Melanoma 20.5 0.298 0.322 69.0965 51.7658 93.377 65.3768 69.077 14.1392 77.8014 86.8521 54.3640 MALME-3M Melanoma 42.2 1.4799 1.555 58.8402 14.1913 1.4692 10.5737 10.9202 14.1828 PA.1838 64.2318 64.2431 14.7133 14.699 10.2217 70.6072 70.6072 95.6244 12.7501 MbAMB-435 Melanoma 2.5 0.034 12.822 12.8553 50.0165 59.2011 17.7846 77.4782 65.7473 52.7473 55.7314 59.4021 17.2462 17.7472 55.6189 47.7844	HT29	Colon	19.5	0.467	1.009	1130.4880	720.9533	1104.0295	157.7500	2236.2194	1874.2777	1459.3589	49.6788
K-562 Leukemia 19.6 1.318 0.735 33.5368 17.2070 45.505 59.853 76.7118 64.822 66.9516 L0XIMVI Melanoma 22.5 0.231 0.082 63.816 24.9029 39.6473 75.248 64.5307 <t< td=""><td>IGR-OV1</td><td>Ovarian</td><td>31</td><td>4.121</td><td>1.086</td><td>52.5101</td><td>13.2038</td><td>44.6464</td><td>60.6720</td><td>130.3813</td><td>76.7994</td><td>72.6045</td><td>46.9203</td></t<>	IGR-OV1	Ovarian	31	4.121	1.086	52.5101	13.2038	44.6464	60.6720	130.3813	76.7994	72.6045	46.9203
KM12 Colon 22.7 0.231 0.082 68.8182 24.902 39.8473 175.2488 112.3102 92.5872 90.1813 49.1584 LOXIMVI Melanoma 20.5 0.298 0.322 60.9605 51.7586 93.377 65.3586 498.2007 24.2608 30.5698 68.3876 MALME-3M Melanoma 40.2 1.469 1.555 58.402 24.2442 14.8173 31.4686 51.7962 102.3272 70.6072 95.6224 72.7501 MDA-MB-345 Melanoma 2.5 0.938 42.4442 14.81713 14.6886 116.838 94.4318 46.2381 46.3891 40.9901 72.1755 70.6072 90.2021 11.6838 94.4318 46.2383 40.3940 10.2321 11.818.46 10.4318 46.2431 45.3901 17.7846 67.4782 53.8743 52.7845 40.3942 45.8141 40.7784 17.8418 40.3850 13.8927 76.558 94.3731 45.3902 15.10100 17.9842 54.9941	K-562	Leukemia	19.6	1.318	0.735	33.5386	17.2045	27.9704	54.5065	59.8553	76.7118	64.8823	66.9518
LOXIMVI Melanoma 205 0.298 0.0332 80.9905 51.7858 93.337 66.3989 48.2607 242.8088 305.844 46.837 MALME-SM Melanoma 46.2 1.460 1.555 58.8408 25.440 45.8736 59.0767 144.1392 77.8014 86.5521 54.3057 MDA-MB-231ATCC Breast 41.9 1.346 0.770 392.2286 12.8553 50.0165 59.2021 70.8072 70.819 52.2844 MDA-MB Melanoma 25.8 0.397 1.318 44.0001 22.2773 45.731 44.9309 117.7364 67.7342 63.6743 52.2844 MOLT-4 Leukemia 27.9 0.628 11.9244 45.0009 27.7534 45.7300 117.7364 67.4722 63.6743 52.2844 NCH-23 Non-SmallCellung 61 1.005 0.9896 116.9089 37.7282 50.6113 118.4381 90.398 46.39772 15.8004 80.1897 163.202 44.3741	KM12	Colon	23.7	0.231	0.682	63.8182	24.9029	39.6473	75.2488	112.3102	92.5879	90.1813	49.1554
M14 Melanoma 283 0.689 0.995 93.8427 41.141 101.5400 71.3410 102.2477 72.8671 86.8093 88.8871 MCF7 Breast 25.4 0.673 0.938 42.442 14.81713 31.4686 51.7662 102.3772 70.8072 95.8247 72.5761 44.392 77.8014 46.2283 MDA-MB-3457CC Breast 25.8 0.394 0.845 57.0006 24.3420 41.9940 45.6883 119.9991 72.1755 76.3419 52.2783 MDA-MB-345 Melanoma 25.8 0.394 0.845 57.0006 24.3703 41.5940 45.7783 62.7783 63.6743 52.783 MDL-AND Breast . 0.597 1.318 40.0091 27.7753 62.724 75.0602 161.303 93.716 65.6164 77.7546 62.7428 75.6061 44.3791 10.645 61.674 10.999 75.8462.7428 75.6002 161.3033 49.334 40.334 10.645 0.145	LOXIMVI	Melanoma	20.5	0.298	0.332	80.9905	51.7858	93.3317	66.3598	498.2607	242.8088	305.9449	46.8337
MALME-3M Melanoma 462 1.469 1.555 58.8408 25.2440 45.873 59.0767 174.1392 77.8014 88.5521 54.3057 MDA-MB-231ATCC Breast 41.9 1.346 0.740 39.2286 13.4686 59.2021 190.2602 114.8388 98.4318 46.2983 MDA-MB-35 Melanoma 25.8 0.394 0.845 57.0060 24.820 45.6883 119.991 72.1754 87.7128 87.7422 85.6743 52.2844 MDA-M Breast . 0.597 1.318 45.0911 19.1164 69.8906 117.5764 67.4722 85.6743 52.2844 NOLT-4 Leukemia 27.9 0.622 122.2 45.0911 11.0518 0.82094 10.105 0.06206 77.9422 50.171 115.0508 73.4474 89.9957 44.3970 NCH-H23 Non-SmallCellung 33.4 2.11 1.466 43.9772 15.003 37.0267 48.850 23.89474 89.9957 44.3935<	M14	Melanoma	26.3	0.589	0.995	93.8427	41.1541	101.5400	71.3410	162.9447	72.6571	86.6093	58.8878
MCF7 Deresat 25.4 0.973 0.938 42.4442 14.8713 31.4686 51.7862 102.3772 70.8072 95.8284 72.7501 MDA-MB-231ATCC Breast 11.346 0.740 33.2286 12.8553 50.0165 50.2011 63.2021 114.3648 64.2383 MDA-MB-35 Melanoma 25.8 0.394 0.845 57.0006 22.2773 45.7313 44.43930 117.7346 67.7422 53.6743 52.7835 MOL-A Leukemia 27.9 0.628 1.282 45.0691 19.1164 69.8900 61.3662 163.5723 83.7216 65.5189 47.7944 NCL-H22R Non-SmallCellLung 61 10.05 0.999 169.9972 15.0631 37.729 C0.0113 115.8681 3.0474 89.0091 136.868 73.4478 75.0607 445.860 76.1718 85.002 146.374 44.9713 1469 43.9772 15.0802 23.947 37.6907 45.8690 116.183.88 10.655 10.255	MALME-3M	Melanoma	46.2	1.469	1.535	58.8408	25.2440	45.8736	59.0767	144.1392	77.8014	88.5521	54.3057
MD-AMB-231ATCC Breast 41.9 1.3.46 0.740 39.228 12.853 50.0165 59.221 90.2902 114.638 Be 3.318 46.2983 MD-AM Breast . 0.597 1.318 44.0001 45.6883 119.9891 72.1755 76.3419 52.7835 MDL-A Leukemia 27.9 0.628 1.4098 37.7534 62.7822 75.0800 91.3962 163.5123 93.7216 95.51694 47.9844 NCI-H2R Non-SmallCellung 31.4 1.799 1.486 52.0259 14.0989 37.7534 62.7728 75.0802 181.3023 40.3905 NCI-H32 Non-SmallCellung 33.4 2.312 1.466 49.9721 35.8039 137.7292 50.6113 118.558 73.8474 68.9357 44.8791 NCI-H32 Non-SmallCellung 31.4 0.116 0.116 37.0802 17.94.94.8500 28.0424 8.2024 8.6400 28.0534 17.0504 34.0360 55.0026 73.504 45.5438 <td>MCF7</td> <td>Breast</td> <td>25.4</td> <td>0.973</td> <td>0.938</td> <td>42.4842</td> <td>14.8713</td> <td>31.4686</td> <td>51.7962</td> <td>102.3772</td> <td>70.6072</td> <td>95.6264</td> <td>72.7501</td>	MCF7	Breast	25.4	0.973	0.938	42.4842	14.8713	31.4686	51.7962	102.3772	70.6072	95.6264	72.7501
MD-MB-435 Melanoma 25.8 0.394 0.645 57.0000 24.3420 41.5946 45.883 119.9891 72.1755 76.3419 55.2844 MDL-N Breast . 0.567 1.318 46.0001 22.2773 45.7313 44.9300 17.7346 67.7472 55.789 47.7944 NCI-ADR-RES Ovarian 34 1.799 1.486 52.0259 14.0989 37.554 67.371 165.0002 181.3203 40.0396 NCI-H226 Non-SmallCellung 33.4 2.312 1.466 43.9772 15.8063 37.7292 50.6113 118.5568 73.8474 86.9957 44.8791 NCI-H422 Non-SmallCellung 17.8 0.145 0.179 179.326 37.9007 48.880 53.0279 70.5044 78.9110 45.5560 NCI-H440 Non-SmallCellung 34.7 0.713 1.552 43.2042 14.8240 43.8180 54.012 1.010.517 123.0512 53.2288 OVCAR-3 Ovarian	MDA-MB-231ATCC	Breast	41.9	1.346	0.740	39.2286	12.8553	50.0165	59.2021	90.2902	114.6388	98.4318	46.2983
MDA-N Breast . 0.597 1.318 44.0801 22.2773 45.733 44.9390 117.784 67.4782 63.8743 52.785 NOLT-4 Leukemia 27.9 0.628 1.282 45.0691 19.1164 69.9980 61.3652 35.216 95.5199 47.7984 NCI-H226 Non-SmallCellLung 33.4 2.312 1.466 43.9772 15.5083 37.7242 50.6113 118.5568 73.6474 86.9987 44.8791 NCI-H220 Non-SmallCellLung 33.4 2.312 1.466 43.9772 15.5083 37.7242 50.6113 118.5568 73.6474 86.9987 44.8791 NCI-H420 Non-SmallCellLung 33.4 0.713 1.452 170.849 34.0360 55.0026 70.5937 123.0612 55.5502 NCI-H420 Non-SmallCellLung 38.2 0.528 0.735 41.9126 17.9444 54.149 90.338 76.9140 94.5013 55.2502 NCI-H420 Non-SmallCellLung 34.7	MDA-MB-435	Melanoma	25.8	0.394	0.845	57.0606	24.3420	41.5946	45.6883	119.9891	72.1755	76.3419	52.2644
MOLT-4 Leukemia 27.9 0.628 1.282 45.0891 19.1164 69.8980 61.3662 183.5123 93.7216 95.5189 47.7894 NCI-ADR-RES Ovarian 34 1.799 1.486 52.0259 14.0989 37.754 62.7242 75.0600 181.3203 49.0396 NCI-H22 Non-SmallCellung 35.3 1.014 0.721 34.6050 23.2847 37.6607 48.8560 238.9161 118.4318 106.6283 53.8479 NCI-H322M Non-SmallCellung 35.3 1.014 0.721 34.6050 23.2847 37.6607 48.8560 238.9161 110.5879 123.0612 55.5020 NCI-H422 Non-SmallCellung 34.2 0.528 0.735 41.9126 17.0494 34.0306 55.0028 70.6534 76.9140 94.512 55.2258 OVCAR-3 Ovarian 44.8 0.7113 1.552 45.2042 18.200 35.9797 66.4650 70.1060 93.8003 103.1607 52.2159	MDA-N	Breast		0.597	1.318	48.0801	22.2773	45.7313	44.9390	117.7364	67.4782	63.6743	52.7835
NCI-ADR-RES Ovarian 34 1.799 1.486 52:299 14.0989 37.754 62:7428 75:0604 96:0980 77:4482 58:1674 NCI-H223 Non-SmallCellLung 33.4 2.312 1.466 49:0977 15:0803 37.7292 50:6113 118:5568 73:6474 86:9957 44:8791 NCI-H224 Non-SmallCellLung 35.3 1014 0.721 36:6050 23:8471 76:607 46:860 238:9161 118:4318 106:623 53:8479 NCI-H422 Non-SmallCellLung 3.2 0.145 0.119 370:3529 179:4326 34:9043 58:0099 193:6110 100:5879 123:0612 55:5602 NCI-H522 Non-SmallCellLung 3.4 7:0713 1.552 43:2042 14:8204 43:610 47:149 16:3223 52:8407 OVCAR-4 Ovarian 44:14 116:325 52:0605 21:8913 39:9797 56:4850 79:1060 93:8003 103:325 52:8407 OVCAR-5	MOLT-4	Leukemia	27.9	0.628	1.282	45.0691	19.1164	69.8990	61.3662	163.5123	93.7216	95.5189	47.7984
NCI-H226 Non-SmallCellLung 61 1.005 0.989 fe985 116.508 236.0440 80.122 485.707 fe5.082 781.3203 49.0396 NCI-H228 Non-SmallCellLung 35.3 1.014 0.721 34.6050 23.2847 37.6907 48.8560 238.9161 118.4318 1006.223 55.847 NCI-H422 Non-SmallCellLung 38.2 0.528 0.735 41.9126 17.0849 34.0943 55.0026 70.5034 7.8.910 94.5013 45.5438 OVCAR-3 Ovarian 41.4 0.374 1.225 53.0666 21.6813 39.9797 56.4850 70.1060 93.8003 103.1607 52.2159 OVCAR-4 Ovarian 26.1 0.655 0.652 49.8581 13.99161 37.4344 54.1114 116.9728 97.3222 108.332 107.5540 50.6757 PC-3 Prostate 27.1 1.202 1.274 75.021 36.6805 54.1058 69.5544 141.2624 104.93322 107.5540<	NCI-ADR-RES	Ovarian	34	1.799	1.486	52.0259	14.0989	37.7534	62.7428	75.0604	96.0960	77.9482	56.1674
NCI-H22 Non-SmallCellung 33.4 2.312 1.466 48.9772 15.8063 37.7292 50.6113 118.5568 73.8474 88.9957 44.8791 NCI-H322M Non-SmallCellung 35.3 1.014 0.721 34.6050 32.2447 37.607 48.8560 23.917 37.607 48.8560 23.917 31.807 48.950 118.1568 17.81 100.5879 122.0612 55.5602 NCI-H422 Non-SmallCellung 38.2 0.528 0.735 41.9126 17.0849 34.9043 55.0026 70.5034 79.910 98.603 100.5170 45.225 53.2258 OVCAR-5 Ovarian 48.8 1.581 3.097 75.9531 39.9161 37.4344 54.4131 124.0652 70.7955 88.692 24.16358 70.7955 88.692 24.152 10.43.021 127.847 15.021 37.4344 54.4131 124.0652 70.7955 88.692 24.164.33.242 104.33.21 14.858 70.7955 88.692 24.164.33.242 104.33.2	NCI-H226	Non-SmallCellLung	61	1.005	0.989	169.9985	116.5058	236.0440	80.1622	465.7077	165.0802	181.3203	49.0396
NCI-H400 Non-SmallCellLung 35.3 1.014 0.721 34.6050 23.2847 37.6607 48.8560 238.9161 118.4318 106.6283 55.8479 NCI-H400 Non-SmallCellLung 38.2 0.528 0.735 11.9126 17.0849 34.0360 55.0028 70.534 76.9140 94.5013 45.5480 OVCAR-3 Ovarian 34.7 0.713 1.552 43.2042 18.2200 43.6180 54.7115 90.5336 72.9210 81.3225 53.25580 OVCAR-4 Ovarian 41.4 0.374 1.225 55.0052 21.6913 39.9797 56.4850 79.1060 93.8003 103.1607 52.2159 OVCAR-5 Ovarian 26.1 0.655 0.652 49.8584 16.6564 2.837.584513 31.46652 70.9755 88.029 41.6358 PC-3 Prostate 27.1 1.202 1.274 75.0021 36.6865 54.1058 69.5544 141.2624 104.3382 107.5540 50.6757 RF-393 Renal 62.9 0.067 0.589 367.5921 199.6603 <td>NCI-H23</td> <td>Non-SmallCellLung</td> <td>33.4</td> <td>2.312</td> <td>1.466</td> <td>43.9772</td> <td>15.8063</td> <td>37.7292</td> <td>50.6113</td> <td>118.5568</td> <td>/3.64/4</td> <td>86.9957</td> <td>44.8791</td>	NCI-H23	Non-SmallCellLung	33.4	2.312	1.466	43.9772	15.8063	37.7292	50.6113	118.5568	/3.64/4	86.9957	44.8791
NCI-H460 Non-SmallCellung 17.8 0.145 0.119 370.3529 179.4326 34.9043 58.0099 193.6110 100.5879 123.0612 55.5602 DVCAR-3 Ovarian 34.7 0.713 1.552 43.2042 18.2200 43.6180 55.0026 70.5034 70.6140 94.5013 45.5438 OVCAR-3 Ovarian 41.4 0.374 1.225 53.2065 21.6913 39.9797 56.4850 79.1060 93.8003 103.1807 52.2159 OVCAR-5 Ovarian 46.8 1.581 3.097 75.68456 42.8373 58.4513 124.6652 70.7955 88.6929 41.6358 PC-3 Prostate 27.1 1.202 1.274 75.0021 36.6865 54.1058 69.5544 414.2624 104.3382 107.5540 50.6757 RXF393 Renal 62.9 0.087 0.598 35.91374 73.9115 79.7205 128.6042 145.0198 51.1729 SF-285 CNS 33.1	NCI-H322M	Non-SmallCellLung	35.3	1.014	0.721	34.6050	23.2847	37.6607	48.8560	238.9161	118.4318	106.6283	53.8479
NCI-H322 Non-SmallCellung 38.2 0.528 0.738 41.9126 17.0849 34.0360 55.0026 70.5034 76.9140 94.5013 45.5138 OVCAR-4 Ovarian 41.4 0.713 11.552 43.2042 18.2200 43.6180 54.7115 90.5303 72.9210 81.3225 53.2258 OVCAR-4 Ovarian 48.8 1.581 3.097 79.5931 39.9161 37.4344 54.1149 116.9728 97.3222 108.3312 52.2159 OVCAR-5 Ovarian 26.1 0.655 0.652 49.8588 16.6586 42.8373 58.4131 124.6652 70.7954 88.692 299.704 53.2258 14.03322 107.5540 50.6757 PC-3 Prostate 27.1 1.202 1.274 75.021 36.6865 54.1058 69.5544 141.9267 23.829 105.542 158.5631 172.947 13.43847 RXF393 Renal 62.9 0.087 0.599 33.7752 16.5541 37.221 <td>NCI-H460</td> <td>Non-SmallCellLung</td> <td>17.8</td> <td>0.145</td> <td>0.119</td> <td>370.3529</td> <td>179.4326</td> <td>34.9043</td> <td>58.0099</td> <td>193.6110</td> <td>100.5879</td> <td>123.0612</td> <td>55.5602</td>	NCI-H460	Non-SmallCellLung	17.8	0.145	0.119	370.3529	179.4326	34.9043	58.0099	193.6110	100.5879	123.0612	55.5602
OVCAR-3 Ovarian 34.7 0.713 1.552 43.2042 18.200 43.6180 54.7115 90.5336 72.9210 81.3225 53.2258 OVCAR-4 Ovarian 41.4 0.374 1.225 53.0065 21.0813 39.9161 37.4344 54.1149 116.9728 97.3222 108.3312 52.2158 OVCAR-5 Ovarian 26.1 0.655 0.652 49.8588 16.6586 42.8373 58.4513 124.6652 70.7955 88.6929 41.6358 PC-3 Prostate 27.1 1.202 1.274 75.0021 36.8685 54.1141 49.6787 238.3692 299.7045 54.2761 RXF393 Renal 62.9 0.007 0.598 305.4177 556.5008 123.7441 149.6787 238.3692 299.7045 54.2761 SF-286 CNS 33.1 2.443 1.596 33.7752 16.5541 37.2038 52.0366 63.0592 158.5851 105.4042 100.1552 42.5057 <t< td=""><td>NCI-H522</td><td>Non-SmallCellLung</td><td>38.2</td><td>0.528</td><td>0.735</td><td>41.9126</td><td>17.0849</td><td>34.0360</td><td>55.0026</td><td>70.5034</td><td>76.9140</td><td>94.5013</td><td>45.5438</td></t<>	NCI-H522	Non-SmallCellLung	38.2	0.528	0.735	41.9126	17.0849	34.0360	55.0026	70.5034	76.9140	94.5013	45.5438
OVCRR-4 Ovarian 41.4 0.3/4 1.22 55.8065 21.9913 39.9797 56.4850 79.1060 93.8003 103.1607 52.2189 OVCRR-5 Ovarian 26.1 0.6655 0.652 49.8588 16.6586 42.8373 58.41149 116.9728 97.3222 103.3312 52.21897 OVCAR-8 Ovarian 26.1 0.6655 0.652 49.8588 16.6586 42.8373 58.4513 124.6652 107.5540 50.6716 PC-3 Prostate 27.1 1.202 1.274 75.0021 36.6865 54.1058 69.5544 141.2677 283.3692 299.7045 54.2761 RXF393 Renal 62.9 0.087 0.598 37.52 16.5541 37.028 56.3083 72.7847 43.845 SF-285 CNS 23.5 1.742 1.340 50.9867 25.1900 46.7346 53.0522 165.6581 105.4042 100.1552 42.5057 SK-MEL-2 Meianoma 45.5 0.	OVCAR-3	Ovarian	34.7	0.713	1.552	43.2042	18.2200	43.6180	54./115	90.5336	72.9210	81.3225	53.2258
UVCRR-5 Ovarian 48.8 1.581 3.09 79.393 39.9161 37.4344 54.1149 116.97.28 97.3222 108.3312 52.24307 OVCRR-5 Ovarian 22.1 0.655 0.652 49.8588 16.6586 42.8373 58.4513 124.6652 70.7955 88.6929 41.8382 PC-3 Prostate 27.1 1.202 1.274 75.0021 38.6865 54.1058 69.5544 141.2624 104.3382 107.5540 50.6757 RPMI-8226 Leukemia 33.5 0.412 0.293 576.4989 305.4177 556.5008 123.7441 149.6787 238.3692 249.7045 54.2761 SF-288 CNS 33.1 2.443 1.596 33.7752 16.5541 37.2038 52.0369 63.3659 56.3083 72.7847 43.8847 SF-295 CNS 35.4 0.845 0.8634 2.5600 19.6393 52.2227 183.340 82.7320 96.0344 52.7207 183.340 82.7320	OVCAR-4	Ovarian	41.4	0.374	1.225	53.6065	21.6913	39.9797	56.4850	79.1060	93.8003	103.1607	52.2159
OVCRR-3 Ovarian 20.1 0.053 0.053 0.052 44.8378 124.652 70.735 88.99/29 41.6335 PC-3 Prostate 27.1 1.202 1.274 75.0021 36.6865 54.1058 69.2544 141.2624 104.332 107.55540 56.7554 RKF393 Renal 62.9 0.07 0.589 307.521 199.6693 359.1374 73.9115 798.7205 128.6042 145.0199 51.1729 SF-268 CNS 33.1 2.443 1.596 33.7752 16.5541 37.2038 52.0365 65.6590 30.7872 158.6551 105.4042 100.1552 42.5057 SF-268 CNS 35.4 0.845 0.863 42.5600 19.6393 52.8222 62.2370 186.3340 82.7320 96.0364 50.0557 SK-MEL-28 Melanoma 35.1 1.117 1.750 75.7969 38.835 63.4331 54.2337 148.3269 75.5627 71.0512 39.2151 SK-M	OVCAR-5	Ovarian	48.8	1.581	3.097	79.5931	39.9161	37.4344	54.1149	116.9728	97.3222	108.3312	52.8407
Fr0-3 Fr0state 27.1 1.202 1.274 7.0021 30.0800 94.1050 09.3944 141.2624 104.382 107.5940 30.0751 RPMI-8226 Leukemia 33.5 0.412 0.293 576.4989 305.4177 556.008 123.7441 149.077 238.3082 299.0745 54.2751 SF-285 CNS 33.1 2.443 1.596 33.7752 16.5541 37.2038 52.0369 63.3659 56.3083 72.7847 43.842 SF-295 CNS 29.5 1.742 1.340 50.9867 25.1900 46.7346 55.0522 158.5651 105.4042 100.1552 42.5057 SF-595 CNS 35.4 0.845 0.863 42.5000 19.6393 52.8222 62.2370 188.340 82.7320 96.0384 50.7660 SK-MEL-2 Melanoma 35.1 1.117 1.750 75.7669 38.835 63.4331 54.2337 146.3269 56.2565 71.0512 39.2151 SK-M	DC 2	Ovarian	26.1	0.655	0.652	49.8588	10.0586	42.83/3	58.4513	144.0052	104 2202	88.0929	41.0358
Intrimozzo Leukerina 33.3 0.412 0.2.9 576.94909 305.9174 73.95.000 12.3.7411 149.6747 238.3092 299.7045 54.271 KXF393 Renal 62.9 0.087 0.589 367.5921 199.6693 355.1374 73.9115 798.7205 128.6042 145.0199 51.1743 SF-286 CNS 33.1 2.443 1.596 33.7752 16.5541 37.2038 52.0369 63.3659 56.3093 72.7847 43.8847 SF-295 CNS 35.4 0.845 0.863 42.600 19.6933 52.222 62.2370 183.340 62.7320 96.0384 50.7605 SK-MEL-2 Melanoma 35.1 1.117 1.750 75.7696 38.8836 63.4331 54.2337 146.3269 56.2657 71.0512 39.21515 SK-MEL-5 Melanoma 25.2 0.811 1.744 47.8044 17.8693 34.3153 65.810 143.2204 79.5222 88.2097 53.1515	PDMI 9226	Fiostate	27.1	1.202	1.274	15.0021	30.0865	54.1058	109.0044	141.2024	104.3382	200.7045	54.0704
Increase Retriant 0.29 0.007 0.393 367.3921 199.093 359.1374 17.39110 198.6205 128.6042 145.0199 51.7129 SF-286 CNS 33.1 2.443 1.596 33.7752 116.5541 37.2038 55.2086 63.3659 65.0093 72.7847 43.8247 SF-285 CNS 35.4 0.845 0.863 42.5600 19.6393 52.8222 62.2370 186.3340 82.7320 96.0364 50.7650 SK-MEL-2 Melanoma 35.1 1.117 1.750 75.7969 38.8835 63.4331 54.2337 146.3269 56.2565 71.0512 39.2151 SK-MEL-28 Melanoma 25.2 0.811 1.746 47.8044 17.8693 34.153 65.810 143.2204 79.5222 88.2697 53.1920 SK-OV-3 Ovarian 48.7 7.962 2.286 56.4772 19.3159 42.2699 75.5662 159.2933 99.6584 107.0643 17.991 32.51	RFMI-8220	Banal	33.5	0.412	0.293	267 5024	305.4177	250.0008	72 0145	149.0/8/	238.3092	299.7045	54.2761
Jor 200 Otivs 33.1 2.4+3 1.390 53.752 16.3541 37.2036 32.0369 95.3093 72.7847 43.8847 SF-295 CNS 29.5 1.742 1.340 50.9867 22.5100 46.7346 53.0522 158.5851 105.4042 100.1552 42.5057 SF-295 CNS 35.4 0.845 0.863 42.5600 19.6393 52.8222 62.2370 186.340 82.7320 96.0364 50.7660 SK-MEL-2 Melanoma 35.1 1.117 1.750 75.7969 38.8836 63.4331 54.2337 146.3269 65.2665 71.0512 39.2151 SK-MEL-8 Melanoma 25.2 0.811 1.746 47.8044 17.8093 34.3153 65.6810 143.2204 79.5222 88.2697 53.4159 SK-OV-3 Ovarian 48.7 7962 2.268 59.716 42.6995 64.1910 157.7641 78.9070 84.7199 53.9429 SNB-75 CNS 62.8	11AF 383	CNS	02.9	0.087	0.569	301.5821	189.0093	37 2020	52.0260	62 2650	120.0042 56.2002	70 7947	12 00/7
Intrace City 23.9 1.742 1.39 dots 23.90 40.7346 35.0322 195.8631 105.4042 100.152 42.506 SF-539 CNS 35.4 0.845 0.863 42.5600 196.393 52.222 62.8227 612.8221 62.2227 185.3340 62.7320 96.0344 57.503 SK-MEL-2 Melanoma 35.1 1.117 1.750 75.7969 38.8835 63.4331 54.2337 146.3269 56.2565 71.0512 39.215 SK-MEL-3 Melanoma 25.2 0.811 1.746 47.8044 17.8693 34.313 56.5610 143.2204 79.522 88.2097 53.4159 SK-MEL-5 Melanoma 25.2 0.811 1.746 47.9044 17.8693 34.58610 143.2204 79.522 88.2097 53.4159 SK-MEL-5 Melanoma 25.5 1.205 1.076 54.7160 26.5410 42.8259 75.5662 159.2933 99.6584 1017.8684 61.7914 S9.8929	SE-205	CNS	33.1	2.443	1.590	50.0997	25 1000	46 7346	52.0309	159 5954	105 4042	100 1552	43.0047
Dirod Dirod <th< td=""><td>SE-530</td><td>CNS</td><td>29.0</td><td>0.845</td><td>0.963</td><td>42 5600</td><td>10 6202</td><td>52 8222</td><td>62 2370</td><td>196 33/0</td><td>82 7320</td><td>06.0364</td><td>50 7660</td></th<>	SE-530	CNS	29.0	0.845	0.963	42 5600	10 6202	52 8222	62 2370	196 33/0	82 7320	06.0364	50 7660
Instancing 40.0 0.222 0.302 0.4007 30.4007 30.4007 30.4007 131.5446 114.1995 111.0072 39.3750 SK-MEL-28 Melanoma 35.1 1.117 1.750 75.7969 38.833 63.4331 54.2307 146.3206 56.2665 71.0512 39.2151 SK-MEL-5 Melanoma 25.2 0.811 1.746 47.8044 17.8693 34.3153 65.6810 143.2204 79.5222 88.2697 53.4159 SK-VO-3 Ovarian 46.7 7.962 2.286 56.4772 19.3159 42.8259 75.5662 159.293 99.6584 107.8684 61.7914 SN12C Renal 29.5 1.205 1.076 54.7160 42.6995 64.1910 157.7461 78.0070 84.7199 53.990 SNB-19 CNS 34.6 1.791 3.251 41.2184 14.5585 40.8056 45.864 103.6093 60.8089 88.1028 56.6488 SNB-20 Colon 2	SK-MEL-2	Melanoma	50.4 // / / / / / / / / / / / / / / / / / /	0.045	0.003	64.0627	30 4596	30 8800	58 2007	131 54/10	114 1005	111 0072	58 3750
District Column District C	SK-MEL-28	Melanoma	40.0	1 117	1 750	75 7960	38 8835	63 4321	54 2327	146 3269	56 2565	71 0512	39 2151
SK-OV-3 Ovarian 48.7 7.962 2.2.86 56.4772 19.3156 42.8259 75.562 159.2243 96.684 107.0643 61.7191 SNLOV-3 Ovarian 48.7 7.962 2.286 56.4772 19.3156 42.8259 75.562 159.233 99.6564 107.6644 61.791 SNLOV-3 Ovarian 29.5 1.005 44.12184 14.5585 40.8056 45.8864 103.6032 60.8089 88.1028 56.4488 SNB-75 CNS 62.8 2.018 0.603 46.9227 17.8724 46.3070 52.2597 199.9273 83.6061 95.6304 54.428 SR Leukemia 28.7 0.568 2.198 77.7801 45.7879 373.0916 95.1388 176.0238 165.1172 135.8657 56.4681 SW-620 Colon 20.4 0.659 1.247 62.5654 29.7102 66.692 52.2913 142.073 66.1477 83.8044 45.804 43.9652 165.1172	SK-MEL-5	Melanoma	25.2	0.811	1 746	47 8044	17 8603	34 3152	65 6810	143 2204	79 5222	88 2697	53 4159
District	SK-OV-3	Ovarian	49.7	7 962	2 286	59 4772	19 3150	42 8250	75 5662	159 2032	99 6584	107 8684	61 701/
SNB-19 CNS 34.6 1.791 3.251 41.2184 14.585 40.0056 45.8064 103.003 607.1193 30.2828 SNB-75 CNS 62.8 2.018 0.603 48.90267 17.8724 46.3070 52.2597 199.9273 83.6961 95.6304 54.4283 SR Leukemia 28.7 0.568 2.198 77.7801 45.7879 373.0916 95.1388 176.028 165.1172 135.8657 56.6481 SW-620 Colon 20.4 0.659 1.247 62.5654 20.917102 66.692 52.2131 142.0973 66.1477 83.0848 48.16681 T-47D Breast 45.5 2.612 0.887 52.1371 17.1170 59.5715 61.8434 215.9101 78.5393 90.5066 57.0151 TK-10 Renal 51.3 1.675 0.753 62.0289 21.5864 43.9632 64.1952 91.0889 236.0648 258.3013 55.0555 U251 CNS	SN12C	Renal	20.5	1 205	1 076	54 7160	26 5410	42 6995	64 1910	157 7641	78 9070	84 7199	53 9929
SNB-75 CNS 62.8 2.018 0.603 46.9227 17.8724 46.3070 52.2597 190.9273 83.6661 95.5034 54.4263 SR Leukemia 28.7 0.568 2.198 77.7801 45.7874 46.3070 52.2597 190.9273 83.6661 95.5034 54.4263 SR Leukemia 28.7 0.568 2.198 77.7801 45.7879 373.0916 95.1388 176.0238 165.1172 135.8657 56.4681 SW-620 Colon 20.4 0.659 1.247 62.6654 29.7102 66.6692 52.2913 142.073 66.1477 83.0846 48.1659 T-47D Breast 45.5 2.612 0.887 52.1371 17.1170 59.5715 61.8434 215.9101 78.5393 90.5066 57.0151 TK-10 Renal 51.3 1.675 0.753 62.0289 21.5804 43.9652 64.1952 91.0889 236.0648 258.5015 10.2545 33.0026 108.2353<	SNB-19	CNS	34.6	1 791	3 251	41 2184	14 5585	40 8056	45 8864	103,6093	60 8089	88 1028	56.6488
SR Leukemia 28.7 0.568 2.198 77.7801 45.7879 373.0916 95.138 176.0238 165.0217 135.0504 95.0667 56.4681 SW-620 Colon 20.4 0.659 1.247 62.5654 29.7102 66.6692 52.2913 142.0973 66.1477 83.0848 48.1659 T-47D Breast 45.5 2.612 0.887 52.1371 17.1170 59.5715 61.8434 215.9101 78.5393 90.5066 57.0151 TK-10 Renal 51.3 1.675 0.753 62.0289 21.5804 43.9632 64.1952 91.0889 236.048 258.3013 55.0055 U251 CNS 23.8 0.815 1.153 36.9377 15.2685 33.4074 51.8664 126.5839 98.3026 108.2353 51.1680 UACC-62 Melanoma 33.3 0.259 0.764 47.5814 30.37935 58.6312 107.0415 78.0237 98.7107 50.8944 UA-21	SNB-75	CNS	62.8	2 018	0.603	48 9287	17 8724	46 3070	52 2597	199,9273	83 6961	95 6304	54,4263
SW-620 Colon 20.4 0.659 1.247 62.564 29.7102 66.6692 52.2913 142.0973 66.112 183.0848 48.1659 T-47D Breast 45.5 2.612 0.887 52.1371 17.1170 59.5715 61.8434 215.9101 78.5393 90.5066 57.0151 TK-10 Renal 51.3 1.675 0.753 62.0289 21.5804 43.9632 64.1952 91.089 236.0648 258.3013 55.0550 U251 CNS 23.8 0.815 1.153 38.9377 15.2685 33.4074 51.8664 126.5839 98.3026 108.2335 51.1864 UACC-257 Melanoma 38.5 3.597 1.687 42.1751 31.7835 40.1491 57.5907 142.0158 87.1711 91.4526 49.0189 UACC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3793 57.9367 142.01458 87.1711 91.4526 49.0189 UAC-62 Melanoma<	SR	Leukemia	28.7	0.568	2 198	77.7801	45 7879	373 0916	95.1388	176 0238	165 1172	135 8657	56 4681
T-47D Breast 45.5 2.612 0.887 52.1371 17.1170 59.5715 61.8434 215.9101 78.3039 90.5066 57.0151 TK-10 Renal 51.3 1.675 0.753 62.0289 21.5804 43.9632 64.1952 91.0889 258.3013 55.0055 U251 CNS 22.3 0.815 1.153 36.9377 15.2885 33.0474 51.8684 126.839 98.0266 57.0151 UACC-257 Melanoma 38.5 3.597 1.687 42.1751 31.7835 40.1491 57.5907 142.0158 87.1711 91.4526 49.0189 UACC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3795 57.66312 107.0415 78.0237 98.7107 50.8944 UO-31 Renal 41.7 6.0671 59.5714 38.4206 54.154 157.0294 80.5702 74.2686 51.0996	SW-620	Colon	20.7	0.659	1 247	62 5654	29 7102	66 6692	52 2913	142.0973	66 1477	83 0848	48 1659
TK-10 Renal 51.3 1.675 0.753 62.029 21.5804 43.9632 64.1952 91.0889 236.0648 258.3013 55.0055 U251 CNS 23.8 0.815 1.153 36.9377 15.2685 33.4074 51.8664 126.5839 98.3026 108.2353 51.1680 UACC-257 Melanoma 38.5 3.597 1.687 42.1751 31.7835 40.1491 57.5907 142.0158 87.1711 91.4526 49.0189 UACC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3795 37.9355 58.6312 107.0415 78.0237 98.7107 50.8944 UO-31 Renal 41.7 6.0671 6.95.781 38.4206 54.7387 53.4154 176.2299 80.5702 74.2686 51.0996	T-47D	Breast	45.5	2,612	0,887	52.1371	17,1170	59.5715	61.8434	215,9101	78,5393	90.5066	57.0151
U251 CNS 23.8 0.815 1.153 36.9377 15.2685 33.4074 51.8664 126.5839 98.3026 108.2353 51.1680 UACC-257 Melanoma 38.5 3.597 1.687 42.1751 31.7835 40.1491 57.5907 142.0158 87.1711 91.4526 49.0189 UACC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3795 37.9355 58.6312 107.0415 78.0237 98.7107 50.8944 UO-31 Renal 41.7 6.067 0.671 59.5781 38.4206 54.154 1452.152.298 80.5702 74.2686 51.0996	TK-10	Renal	51.3	1,675	0.753	62.0289	21.5804	43,9632	64,1952	91.0889	236.0648	258.3013	55.0055
UACC-257 Melanoma 38.5 3.597 1.687 42.1751 31.7835 40.1491 57.5907 142.058 87.171 91.4526 49.0189 UACC-262 Melanoma 31.3 0.259 0.764 47.5814 30.3795 37.9355 58.6312 107.0415 78.0237 98.7107 50.8944 UAC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3795 37.9355 58.6312 107.0415 78.0237 98.7107 50.8944 UO-31 Renal 41.7 6.067 0.671 59.5781 38.4206 54.7387 53.4154 176.2299 80.5702 74.2686 51.0996	U251	CNS	23.8	0.815	1.153	36.9377	15 2685	33 4074	51 8664	126 5839	98 3026	108 2353	51,1680
UACC-62 Melanoma 31.3 0.259 0.764 47.5814 30.3795 37.9355 58.6312 107.0415 78.0237 98.7107 50.8949 UO-31 Renal 41.7 6.067 0.671 59.5781 38.4206 54.7387 53.4154 176.229 80.5702 74.2886 51.0996	UACC-257	Melanoma	38.5	3.597	1.687	42.1751	31,7835	40.1491	57.5907	142,0158	87.1711	91.4526	49,0189
UO-31 Renal 41.7 6.067 0.671 59.5781 38.4206 54.7387 53.4154 176.229 80.5702 74.2686 51.0996	UACC-62	Melanoma	31.3	0.259	0.764	47.5814	30.3795	37,9355	58.6312	107.0415	78.0237	98,7107	50.8944
	UO-31	Renal	41.7	6.067	0.671	59.5781	38.4206	54.7387	53.4154	176.2299	80.5702	74.2686	51.0996

Supplementary Table 1. Correlation between sensitivity to 5-azacytidine and expression levels of OAS family members. Drug sensitivity to 5-azacytidine is represented as GI50, the drug concentration resulting in a 50% growth reduction quantified by measurement of total protein at day 6 (raw data downloaded from NCI DTP - http://dtp.nci.nih.gov)(higher GI50 = less sensitive to drug). GI50 was correlated with expression of OAS1 and OASL in the cell lines (gene expression values by microarray from Geo Database GSE5846).



Supplementary Fig. 1. Visualization of self dsRNA induced by AZA treatment. WT A549 cells were incubated without (mock) or with 50 µM AZA for 48 h. The intracellular dsRNA was detected by IFA with J2 monoclonal antibody against dsRNA (Green). The nuclei were stained with DAPI (blue). The experiment was reproduced in three biological replicates.



Supplementary Fig. 2. MAVS has a minimal effect on cell survival after AZA treatment. (A) Western blots of WT, RNase L KO, MAVS KO and RNase L-MAVS DKO A549 cells. (*B-D*) Percent cell survival after AZA treatment. The data are the averages \pm SD of four identical replicates. Three biological replicates were performed, each with a minimum of three technical replicates.



Supplementary Fig. 3. Induction of ADAR1 p150 and OAS1 by IFN- β or AZA. (A) Western blots of ADAR1 from WT and p150 KO A549 cells that were either untreated or treated with IFN- β (200 IU/ml for 18 h). Upper panel shows p110 and p150 isoforms of ADAR1, lower panel shows β -actin as loading control. (B) Western analyses of WT A549 cells untreated (mock) or treated with 50 μ M AZA (for 48 h) or 10 IU per ml of IFN- β (for 48 h). The blots were probed with antibodies against ADAR1, OAS1 and β -actin antibody.