Supplemental material to:
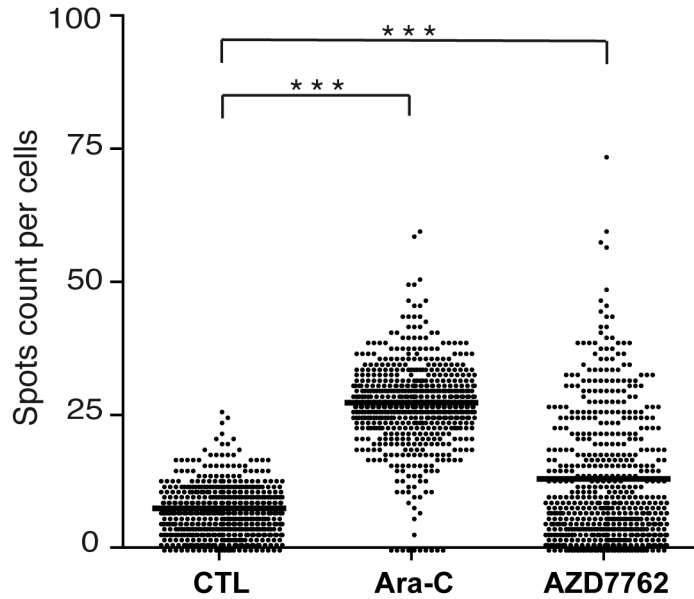
Supplementary Figure 1: Quantification of γ-H2AX signal on the S-phase fraction of KG1a leukemic cells by arrayscan analysis. KG1a were treated with 5 μM ara-C or 300 nM AZD7762 for 24h. KG1a cells were then subjected to an immunofluorescence assay using anti-Proliferating Cell Nuclear Antigen (PCNA; detection of S-phase cells) and anti-γH2AX (the phosphorylated form of histone H2AX that accumulates in cells containing damaged DNA) antibodies and finally stained with DAPI. Quantification was carried out with a Cellomics Array Scan device (ThermoScientific). For each analysis, 590 PCNA-positive cells were analyzed for the number of γH2AX foci/spot in at least 3 independent experiments. The results of a typical experiment are shown. PCNA-positive cells containing more than 1 foci/spot were included in the analysis. As expected the number of spots per cells (mean= 27.24 ± 0.33) in ara-C treated cells increases compared to control cells (mean= 7.38 ± 0.19), interestingly the number of spot per cells is slightly increased in cells treated with AZD7762 alone (mean = 19.93 ± 0.49). This observation demonstrated clearly the involvement of CHK1 in the genomic stability of non-challenged cells. P-values were calculated using the Student's t-test (***, $P <0.0001$).

Supplementary Table: Karyotype of AML patients used in this study.

Patient no.	Cytogenetics
1	44,XY,del(5)(q13q33),-6,-7,add(12)(p13),der(16)t(6;16)(q14;q22),add(19)(p13),-21,i(22)(q10)or dic(22;22)(q10;q10),+mar
2	46,XY,t(6;8)(q25;q12),-13,del(20)(q12)+mar
3	46,XX,del(5)(q13q33),der(15)t(1;15)(p13;p11)/<13>46,XX,del(5)(q13q33,der(5)t(5;15)(q33;q11),add(6)(q27),add(7)(q11),i(11q)?,-15,der(21)t(1;21)(p22;p11),+22
4	49,XY,der(3)t(1;3)(p21;q24),t(3;15)(q26;q15),+i(11)(q10),+der i(11)(q10)x2/49,idem,del(7)?(q11q35)
5	50,XX,+9,-16,+17,+21,+22,del(5)(q12q32),-8,+der(8)ins(8;?)(q21;?),i(8q)
6	46, XX, t(4;11)(p12;q23),del((12)(p12q12),der(16)t(1;16)(q22;q24),der(18)t(8;18)(q23;q23),der(22)t(?12;22)(p12p12;p11)
7	47,XY,t(1;4)(q23;q23),del(7)(q21),+14
8	52,X,add(X)(q22),del(3)(q24),del(5)(q21q34),der(7;16)(p10;p10),add(8)(p11),+add(8)(p11)x2,t(10;12)(q22,p13),-13,del(17)(p11),+i(21)(q21)x5,+mar[cp15]
9	43,XY,add(4)(q35),add(7)(p15),del(9)(q11q21),t(9;22)(q34;q11),-12[cp4],der(14;17)(q10;q10),del(16)(p12),-19
10	45, XY,-5,der(11)add(11)(p15)add(11)(q23),add(12)(p13),der(17)ins(17;?)(q11;?), -20,+21
11	45,XX, del(5)(q13q33,-7,t(10;3;9;12;7)(q10;q24;q31p10;q36)