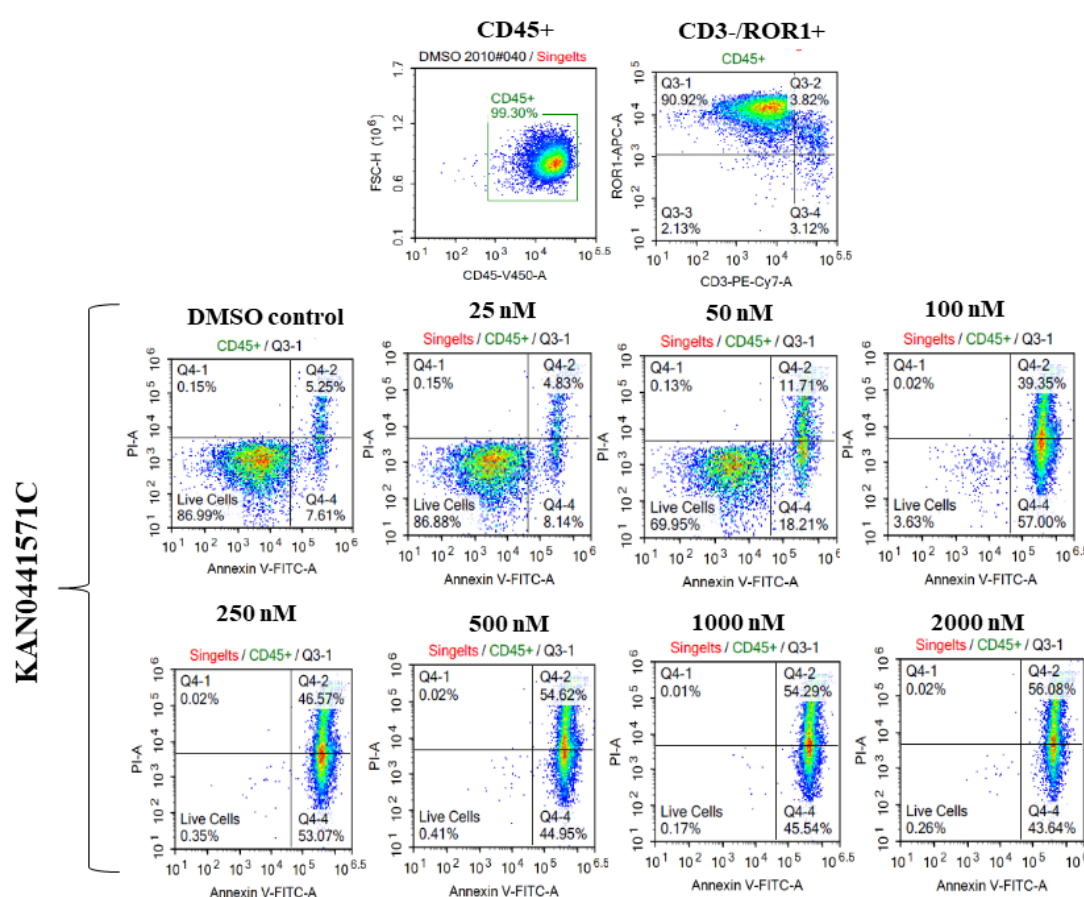
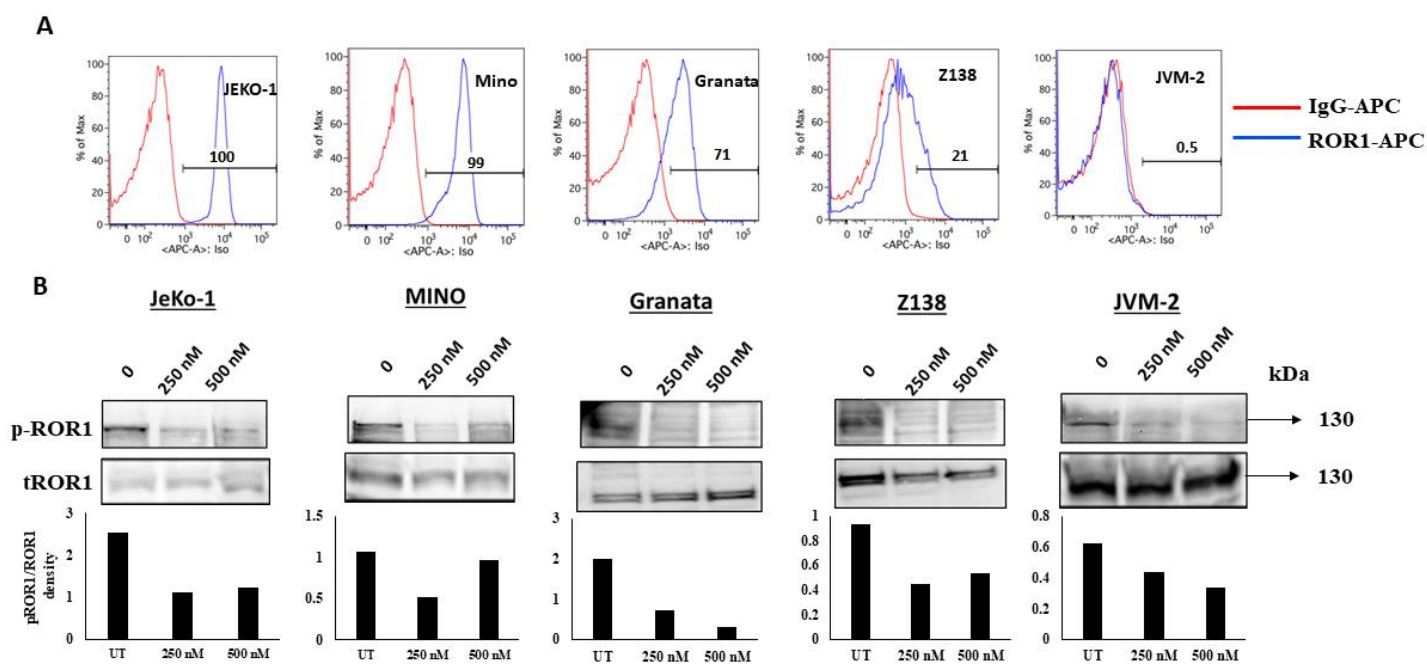


Supplementary Materials: The following supporting information can be downloaded at: www.mdpi.com/xxx/s1

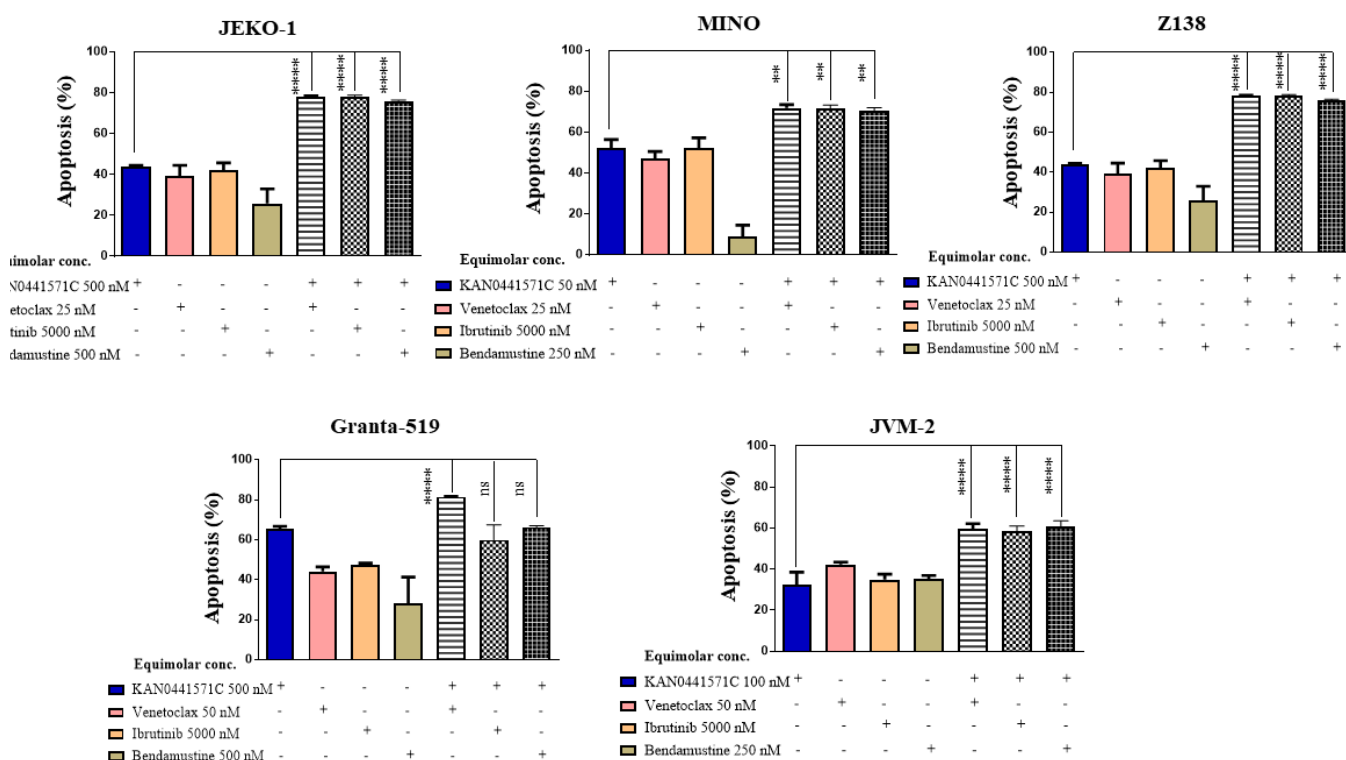
Supplementary Figure S1: Dose-dependent apoptosis of KAN0441571C. Analysis of apoptosis in primary MCL cells from a patient using Annexin V/PI staining in CD45⁺/ROR1⁺/CD3⁻ gated cells after incubation for 24 h with KAN0441571C (25–2000 nM).



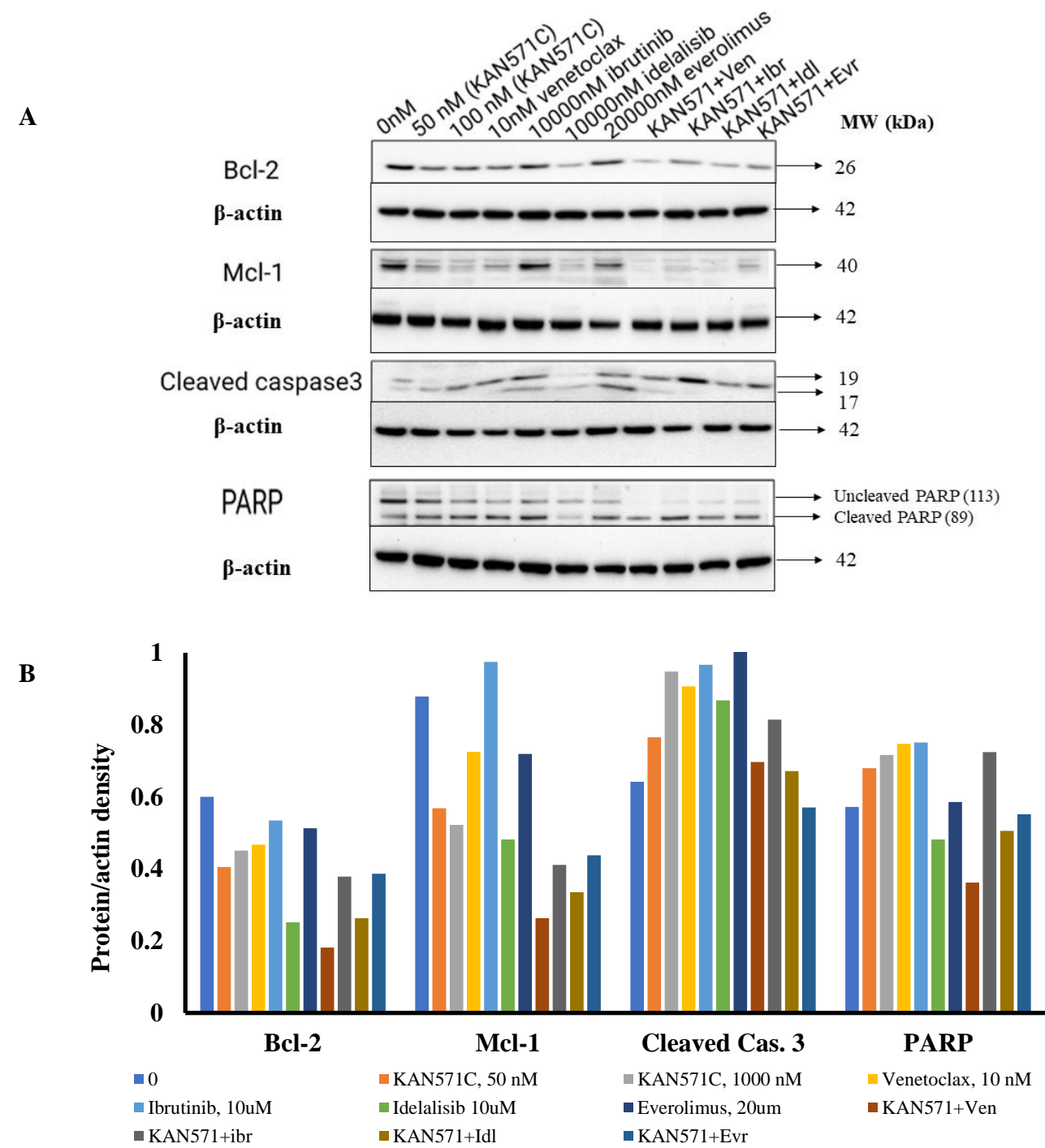
Supplementary Figure S2: Analysis of ROR1 expression in MCL cell lines. Analysis of ROR1 surface expression in 5 MCL cell lines (A). Western Blot analysis of total (t) ROR1 and phosphorylated (p) ROR1 proteins in 5 MCL cell lines before and after incubation (4 h) with the



Supplementary Figure S3: MTT assay on 5 MCL cell lines. Cytotoxicity (MTT) in 5 MCL cell lines incubated for 72 h with EC₅₀ concentration of KAN0441571C and equimolar concentration of venetoclax, ibrutinib, and bendamustine respectively. P-values comparing cytotoxicity of KAN0441571C alone against the combination of KAN0441571C with other drugs are shown at the top. ** $p < 0.01$, **** $p < 0.0001$; ns: not significant. Mann-Whitney U test was used for comparisons.



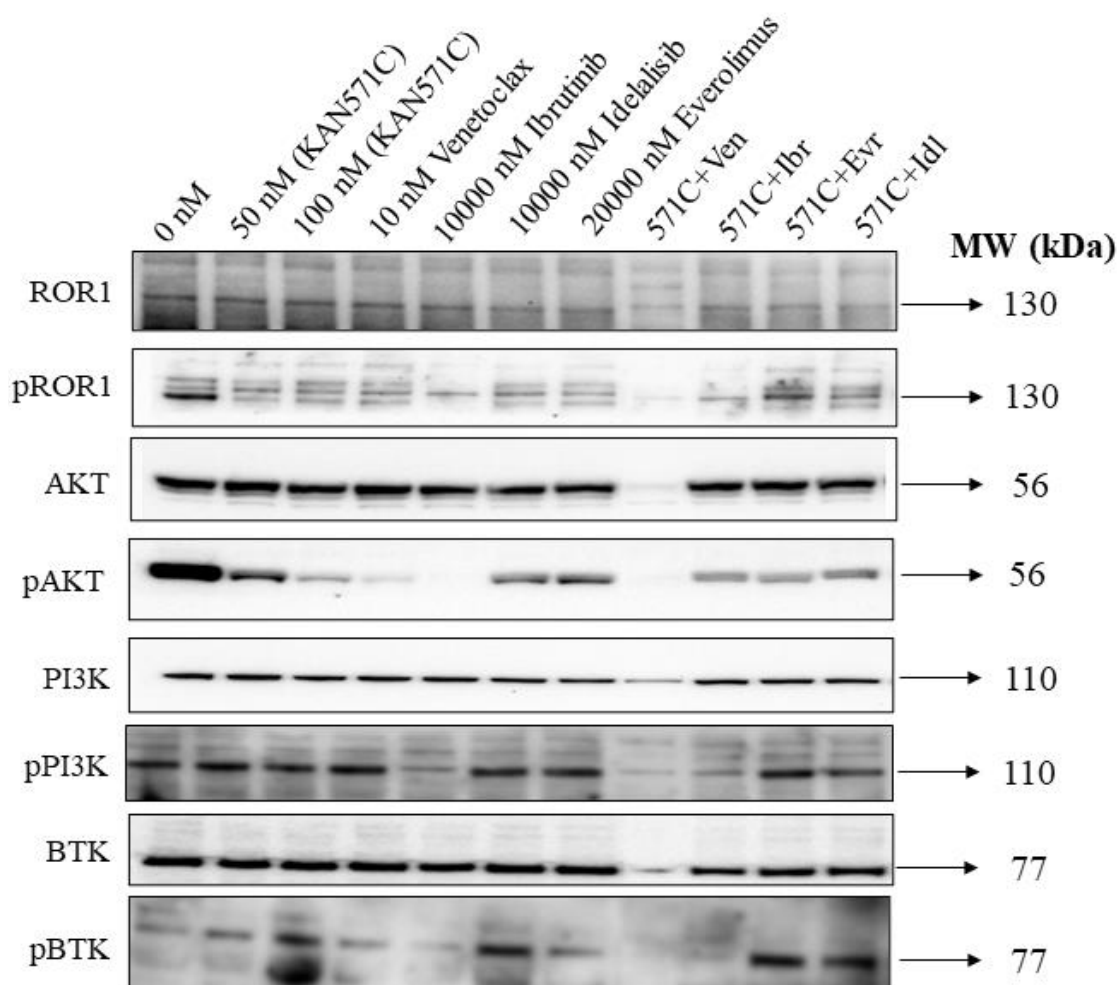
Supplementary Figure S4: Western blots analysis of apoptotic proteins in patient derived MCL cells. Western blots for apoptotic proteins in patient derived MCL cells after incubation with KAN0441571C, venetoclax, ibrutinib, everolimus alone and in combinations as indicated at the top. The molecular weight of proteins is shown fir each blot (A). Relative density of each protein band to beta actin (B).

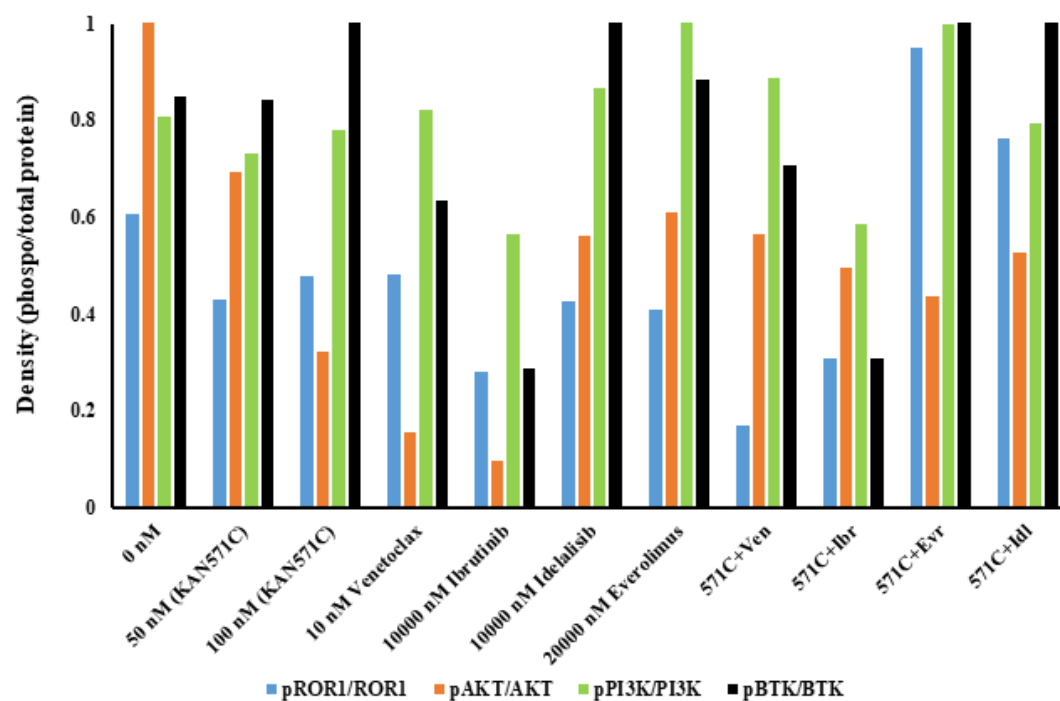


Supplementary Figure S5: Effects of KAN0441571C, venetoclax, ibrutinib, idelalisib, everolimus alone and in combinations on ROR1 and intracellular signaling molecules.

Western blots of total and phosphorylated proteins after incubation with KAN0441571C, venetoclax, ibrutinib, idelalisib, everolimus alone and in combinations as indicated at the top (A). Densitometry analysis of pROR1/ROR1, pAKT/AKT, pPI3K/PI3K and, pBTK/BTK (B).

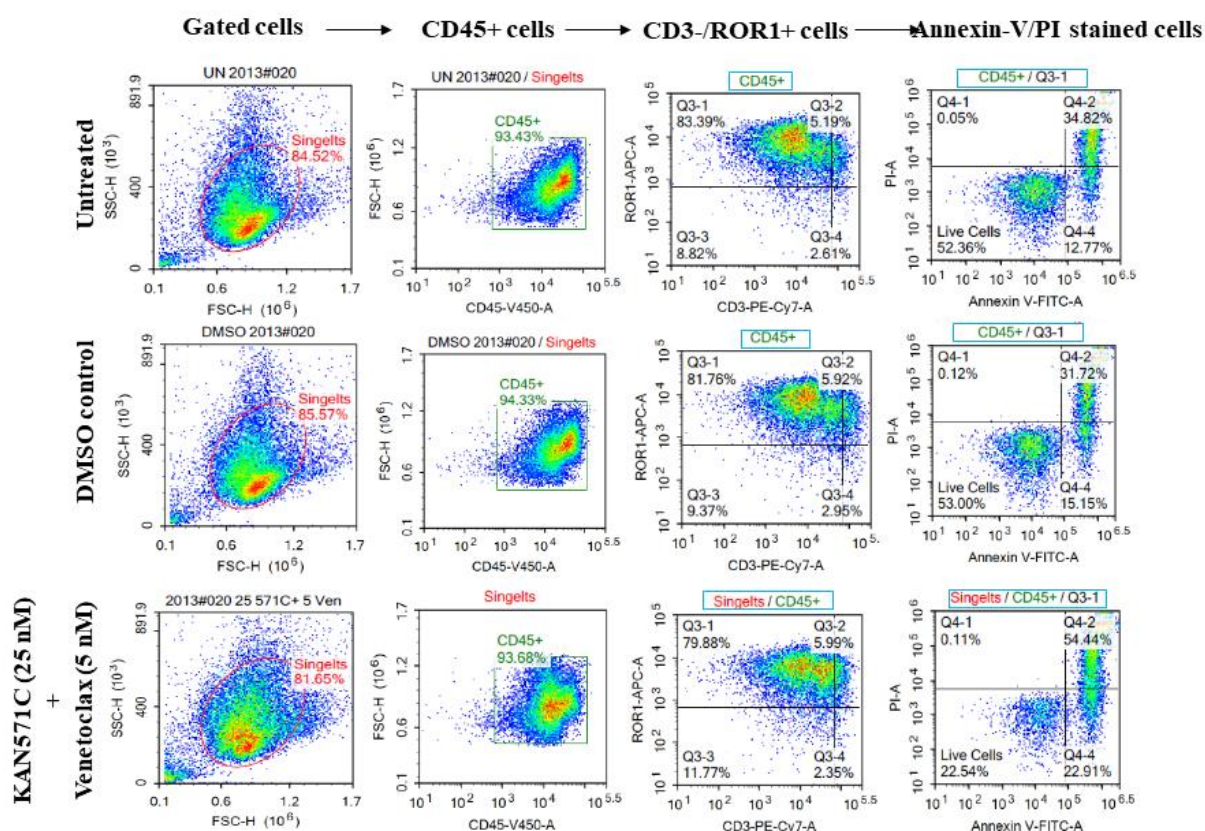
A

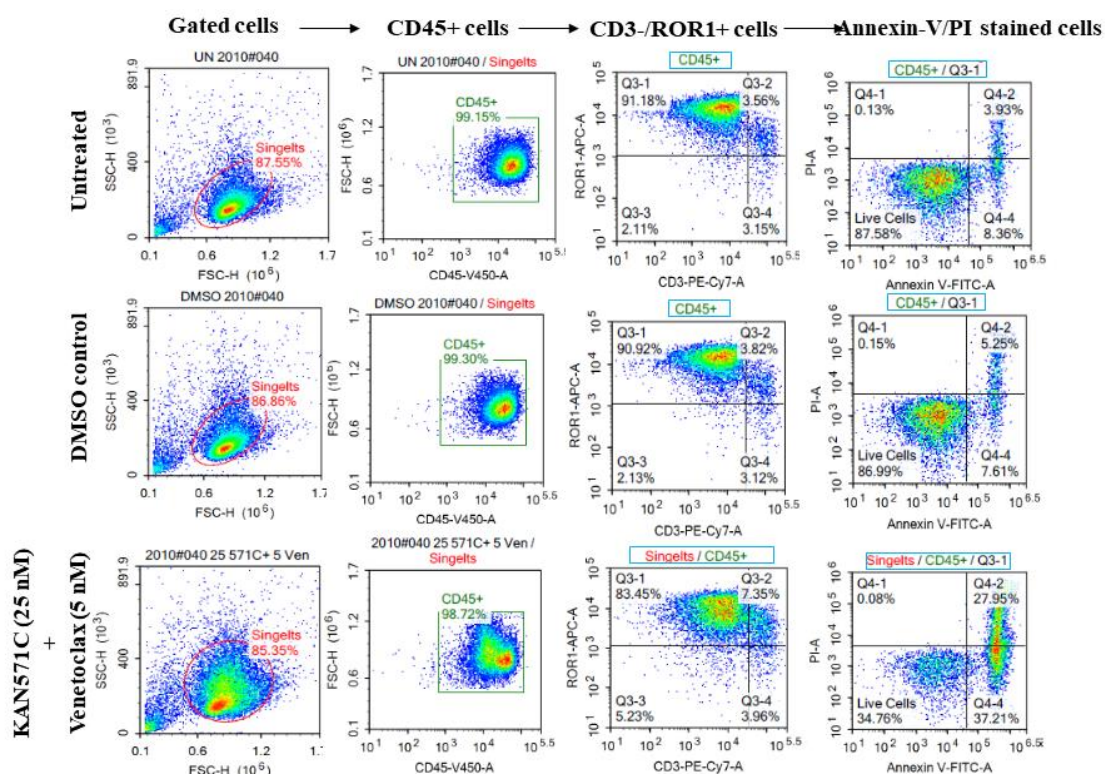
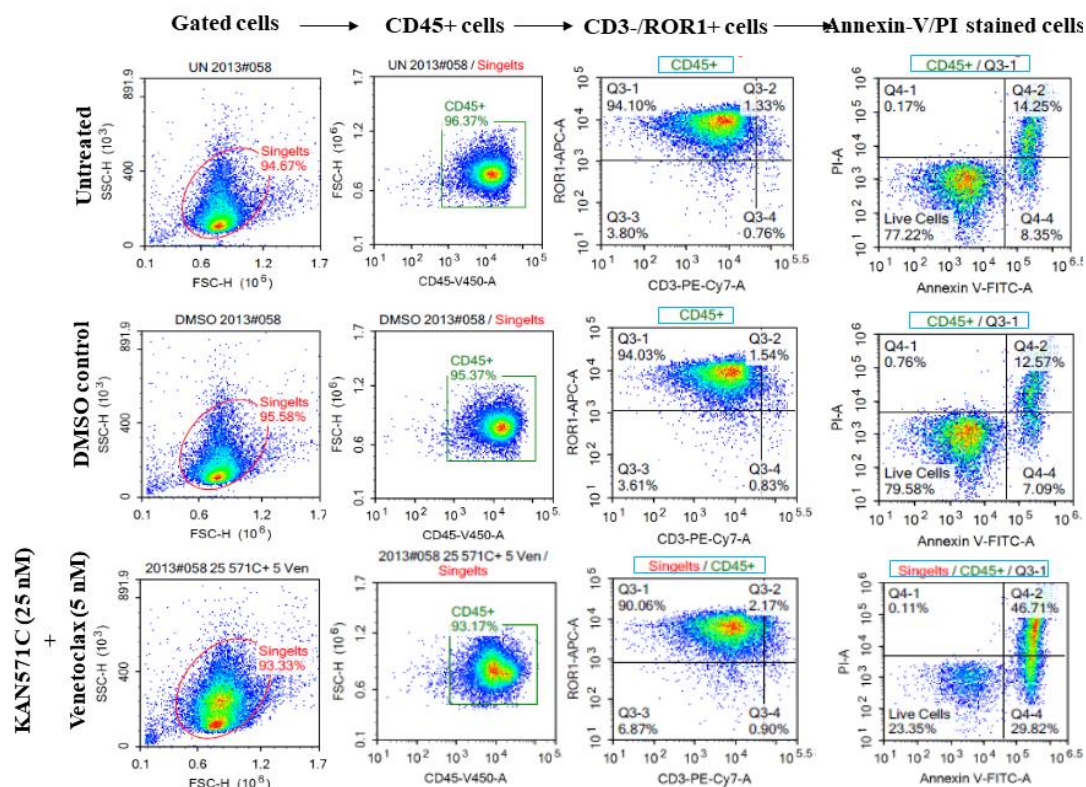


B

Supplementary Figure S6: Induction of apoptosis (flowcytometry Annexin/PI) in primary MCL cells. Representative figures of patients are shown in (A) (2013#020); (B) (2010#040) and (C) (2013#058) using a combination of KAN0441571C (25 nM) and venetoclax (5 nM). Untreated or DMSO (10 ul/ml) were used as controls (24 h). Induction of apoptosis (48 h) in the MCL cell line MINO (D) using various conc. of KAN0441571C (25–2000 nM) and DMSO (10 ul/ml) as a negative control is also shown

A



B**C**

D