



Supplemental Fig S7: FACs analysis showed increase in H3 phospho-S10 positive cells following *Skiv2l2* knockdown. For H3 phospho-S10 detection, fixed cells were incubated with the primary antibody against H3 phospho-S10 (1:1000 dilution, Abcam® ab5176) for 1 hour at 21°C. Cells were washed twice in PBS, .1% NP-40, pH 7.5 before incubation with the secondary antibody anti-rabbit conjugated to AlexaFluor® 488 (1:500 dilution, Thermo Fisher #A-11034) and 1 U RNaseA for 30 minutes at 37°C. Cells were then washed in PBS and treated with 100 µL of 1 mg/mL propidium iodide before analysis on the BD Accuri™ C6 cell sorter as stated above, with excitation at 488nm and detection using the FL-1 filter. The percentage of cells fluorescing was normalized to negative controls with primary antibody only and secondary antibody only, with the percentage of cells fluorescing calculated by the CFlow® Plus software (n=3, 50,000 cells per run). Following treatment with control siRNA, 6.8% of cells stained with H3 phospho-S10, and ATRA treatment resulted in a similar percentage of H3 phospho-S10 positive cells (8.35%, p-value=0.4). 15.5% of *Skiv2l2* knockdown cells stained positive for H3 phospho-S10 (p-value=0.008).