**CHEK2 is dispensable for IR induced apoptosis in quiescent HSPC,** **but becomes required for apoptosis of cycling HSCs.** Lin-CD34+ cells were sorted to obtain HSC (CD34+38-/lowCD45RA-CD90+), CMP (CD34+38+CD45RA-CD135+), GMP (CD34+38+CD45RA+CD135+) and MEP (CD34+38+CD45RA-CD135-) fractions. Then cells were resuspended in X-VIVO 10 (BioWhittaker, Waldersville, MD) medium supplemented with 1% BSA and SCF (100 ng/ml), FLT3L (100 ng/ml), TPO (15 ng/ml), G-CSF (10 ng/ml), and IL-6 (10 ng/ml) and IR-treated with 3Gy (D0) or grown *ex vivo* for 4 days and then irradiated (D4). When indicated, cells were pre-treated with CHEK2i (CHEK2 Inhibitor II,10uM final) or DMSO for 1hr prior to irradiation. Assessment of IR-induced cell death in the indicated populations 18hr post IR relied on double staining with Annexin and Sytox.