



**Figure S2.** Expression of Bcl2 retards DNA replication via reduction of deoxyribonucleotide synthesis and RNR activity in normal human bronchial epithelial (BEAS-2B) cells. *A*, Bcl2 was stably transfected in BEAS-2B cells. Expression levels of Bcl2, hRRM1 and hRRM2 were analyzed by Western blot. *B*, BEAS-2B cells expressing Bcl2 or vector-only control were pulsed-labeled with 100  $\mu$ M CldU for 20 min and 100  $\mu$ M IdU for another 20 min. The labeled cells were processed for DNA combing. Representative pairs of sister replication forks are shown. Red, CldU. Green, IdU. Bar, 5  $\mu$ m (1  $\mu$ m = 2.59 kb). *C*, distribution of fork rate (kb/min) in BEAS-2B cells expressing Bcl2 or vector-only control. The mean  $\pm$ SD for fork rate and number of scores are summarized. The p value was determined by a two-tailed Mann-Whitney test. *D*, distribution of inter origin distances (kb) are compared in BEAS-2B cells expressing Bcl2 or vector-only control. The mean  $\pm$ SD for distances and number of scores are summarized. *E*, distribution of the degree of asymmetry of bidirectional replication forks was compared in BEAS-2B cells expressing Bcl2 or vector-only control. *F*, intracellular levels of dNTPs in BEAS-2B cells expressing WT or vector-only control were measured. Error bars represent  $\pm$ SD of three repeated determinations. *G-H*, extracts from BEAS-2B cells expressing WT Bcl2 or vector-only control were incubated with <sup>14</sup>C-CDP. The generation of <sup>14</sup>C-dCDP was analyzed by a phosphorImager on TLC. The relative abundance of <sup>14</sup>C-dCDP and <sup>14</sup>C-CDP was quantified with imageQuant software. RNR activity was calculated by a formula as <sup>14</sup>C-dCDP / (<sup>14</sup>C-CDP + <sup>14</sup>C-dCDP). Error bars represent  $\pm$ SD of three repeated determinations.