



**Fig. S1** p38 $\alpha$  and p38 $\gamma$ , but not p38 $\beta$ , are essential for senescence induction by oncogenic *ras* in WI38 cells. WI38 cells transduced with shRNA for GFP (shGFP), p38 $\alpha$  (sh $\alpha$ 756), p38 $\beta$  (sh $\beta$ 319, 375) or p38 $\gamma$  (sh $\gamma$ 550, 1023) and HaRasV12 (Ras) or vector control (WH) were seeded into 12-well plates at  $2 \times 10^4$  cells/well after selection of transduced cells. Cell numbers were counted 5 days after seeding, and population doubling was calculated for each cell line. Values are mean  $\pm$  SD for duplicates.