

**Figure S2. Primary tumor incidence and growth in**  $Braf^{CA}$ ;  $Cdkn2a^{tf}$  mice is not altered by ARF6-GTP. (a) Primary tumor incidence (% = # of mice that developed a tumor / # TVA positive, injected mice) in control and overlapping  $Arf6^{Q67L}$  cohorts. Two  $Arf6^{Q67L}$  cohorts, classified according to detectable or undetectable HA-tagged  $Arf6^{Q67L}$  expression by qRT-PCR and/or by anti-HA immunohistochemistry (see Figure S1). Cohort A includes all mice injected with RCAS Cre +  $Arf6^{Q67L}$ . Cohort B is limited to only those mice from cohort A with detectable  $Arf6^{Q67L}$  in tumors. Fisher's exact test, two tailed, α <0.05. b) Primary tumor growth upon tumor onset, bars = SD. (c) Overall survival upon tumor onset, log-rank (Mantel-Cox) test. (d) Metastatic incidence (# mice with metastasis / # mice with primary tumors). (e) Proliferation,  $Braf^{CA}$ ;  $Cdkn2a^{tf}$  mouse melanoma cells. (f). Apoptosis,  $Braf^{CA}$ ;  $Cdkn2a^{tf}$  mouse melanoma cells. (g) Representative images of Ki67 immunostains, 200x magnification, scale bars = 50μm.

+ Arf6Q67L