Supplemental figure legends

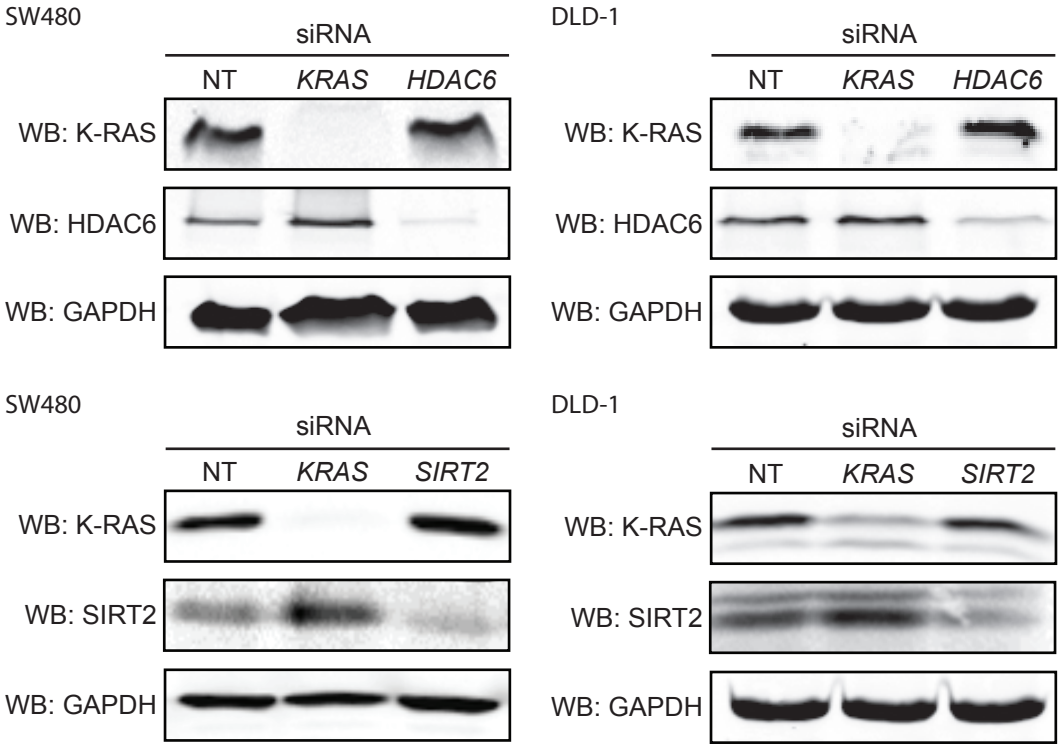
Figure S1. Validation of knockdowns. A, Knockdowns of *KRAS*, *HDAC6*, and *SIRT2* in SW480 and DLD-1 cells were validated by western blotting. B, Knockdowns of *KRAS*, *SIRT1*, *SIRT2*, *HDAC1*, and *HDAC6* in NIH3t3 cells expressing K-RAS^{G12V} or K-RAS$^{G12V/K104A}$. GAPDH was used as a loading control for all western blots.

Figure S2. Regulation of K-RAS acetylation and oncogenicity by HDAC1/6. A, Co-immunoprecipitation of endogenous RAS and HDAC1 in CRC cells. RAS does not immunoprecipitate with HDAC1. B, Colony forming assay in CRC cells. Both *HDAC6* and *KRAS* knockdowns suppress colony formation.

Figure S3. SIRT2 regulates K-RAS acetylation and oncogenicity. A, Co-immunoprecipitation of endogenous RAS and SIRT2 in CRC cells. Although the levels of SIRT2 vary among cell lines, it can always be immunoprecipitated with RAS. B, Co-immunoprecipitation of ectopic K-RAS and SIRT2 in 293T cells. K-RAS interacts less efficiently with a catalytically dead version of SIRT2 (HY). C, Colony forming assay in CRC cells. Both *SIRT2* and *KRAS* knockdowns suppress colony formation. D, Knockdown of *KRAS* in lung cancer cell lines. Some lung cancer cell lines (e.g. H2009) are sensitive to loss of SIRT.

Supplemental Figure 1

A



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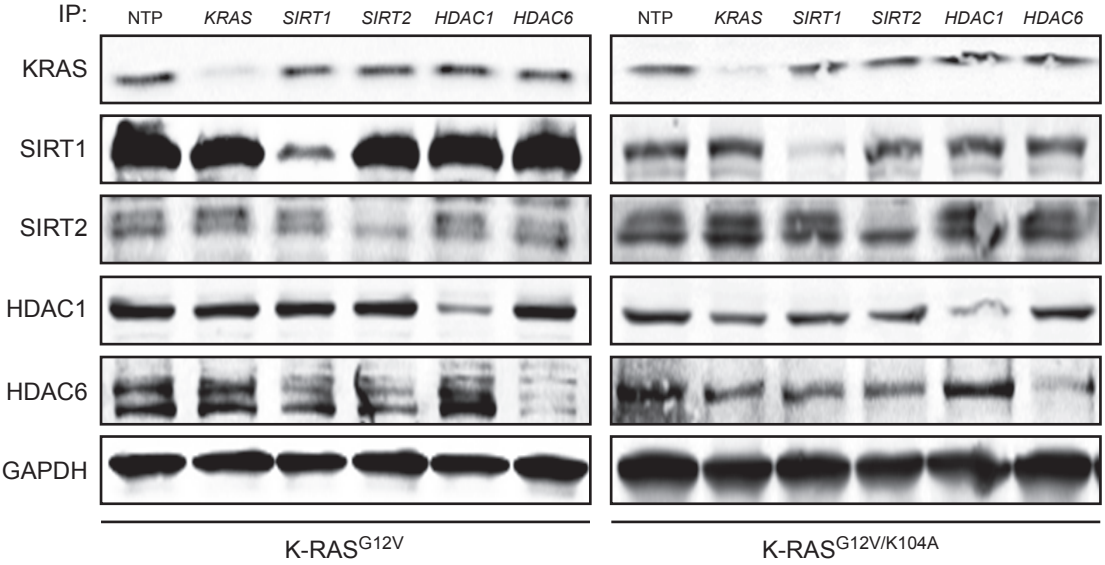
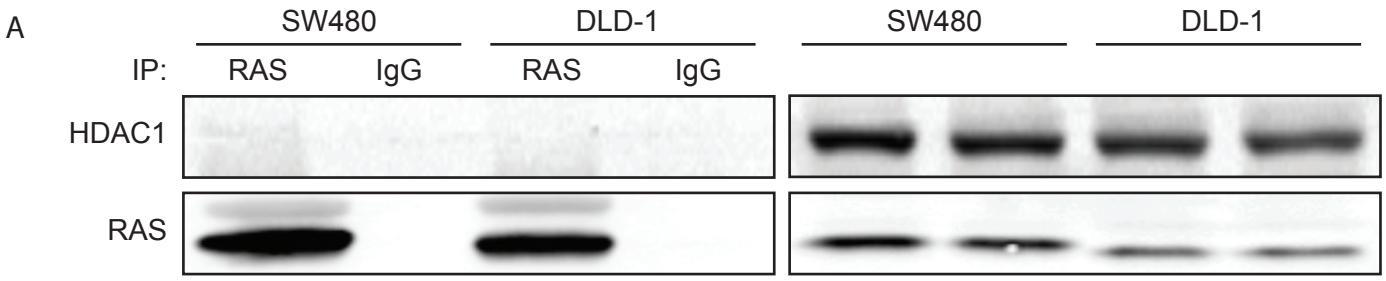
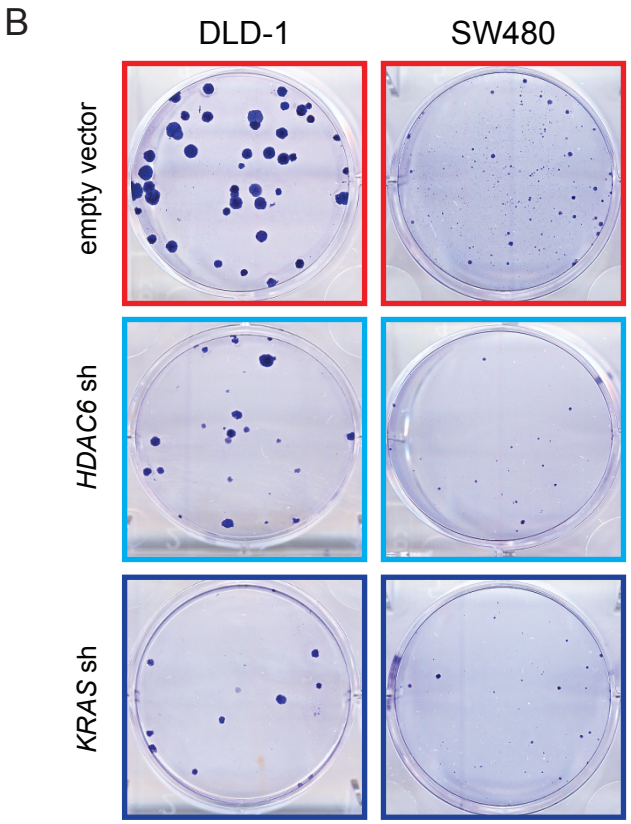


Supplemental Figure 2





Supplemental Figure 3