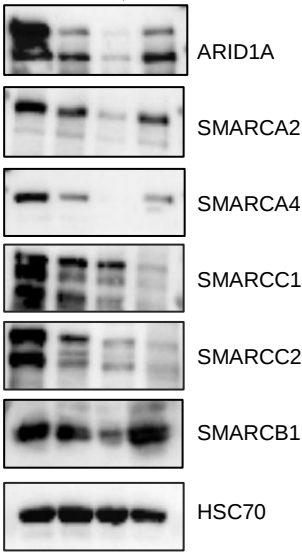


Supplemental Fig. 1

a) COLO320DM
DLD1 HT29 HCT116



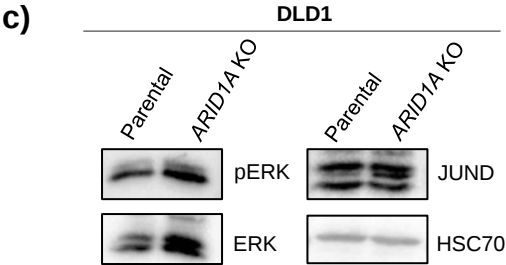
b) Mutual Exclusivity of *ARID1A* and *KRAS* mutations in the TCGA PanCancer Atlas Colorectal Adenocarcinoma Cohort (526 patients)

Number of patients with *ARID1A*, *KRAS*, both or neither mutations

<i>ARID1A</i>	<i>KRAS</i>	Both	Neither	Log2 Odds Ratio	p-value	Mutual Exclusivity
44	204	16	262	-1.098	0.007	Mutually exclusive

<i>ARID1A</i>	<i>KRAS</i> *	Both	Neither	Log2 Odds Ratio	p-value	Mutual Exclusivity
49	168	11	298	-1.328	0.004	Mutually exclusive

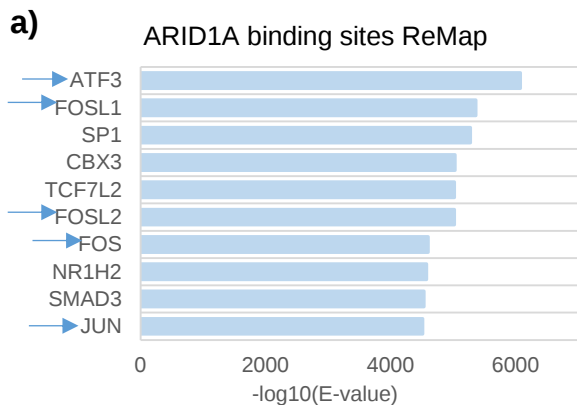
* *KRAS* mutations at residues G12 and G13



d) Top 10 pathways enriched in *ARID1A* KO downregulated genes

HCT116	DLD1	COLO320DM
HCT116 <i>ARID1A</i> KO downregulated GO Terms	DLD1 <i>ARID1A</i> KO downregulated GO Terms	COLO320DM <i>ARID1A</i> KO downregulated GO Terms
regulation of transcription from RNA polymerase II promoter	positive regulation of chemotaxis.	positive regulation of cardiac muscle cell differentiation.
response to endoplasmic reticulum stress	regulation of chemotaxis.	positive regulation of cardiocyte differentiation.
positive regulation of transcription from RNA polymerase II promoter	actin filament bundle assembly.	regulation of cardiac muscle cell differentiation.
epidermal growth factor receptor signaling pathway	actin filament bundle organization.	hair cell differentiation.
hippo signaling	platelet degranulation.	positive regulation of cell differentiation.
positive regulation of transcription, DNA-templated	regulation of actin cytoskeleton organization.	cGMP-mediated signaling.
intrinsic apoptotic signaling pathway	extracellular matrix organization.	regulation of relaxation of cardiac muscle.
intrinsic apoptotic signaling pathway in response to endoplasmic reticulum stress.	positive regulation of locomotion.	regulation of Wnt signaling pathway, planar cell polarity pathway.
regulation of epithelial cell proliferation.	negative regulation of tumor necrosis factor-mediated signaling pathway.	regulation of leukocyte degranulation.
regulation of fat cell differentiation.	regulation of cytoskeleton organization.	cAMP catabolic process.

Supplemental Fig. 2



Signal at ARID1A-occupied enhancers

