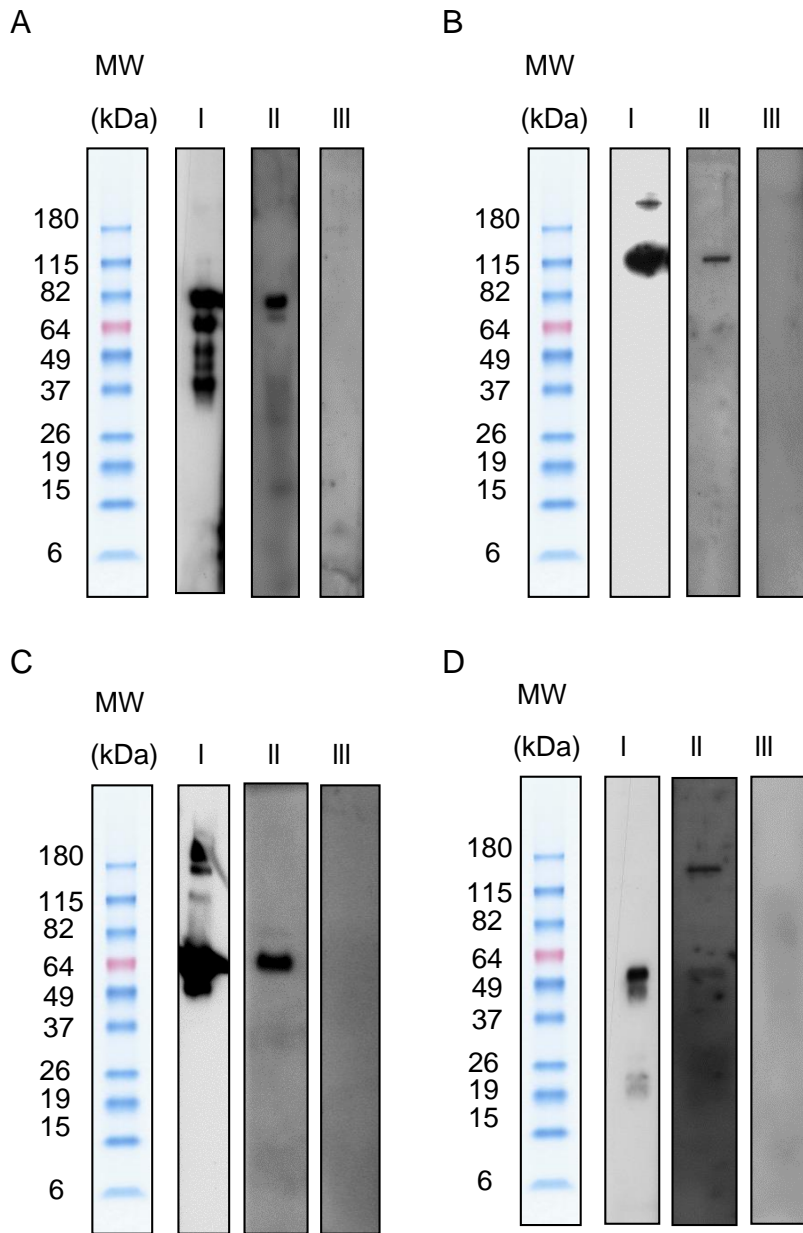# SUPPLEMENTAL TABLES AND FIGURES
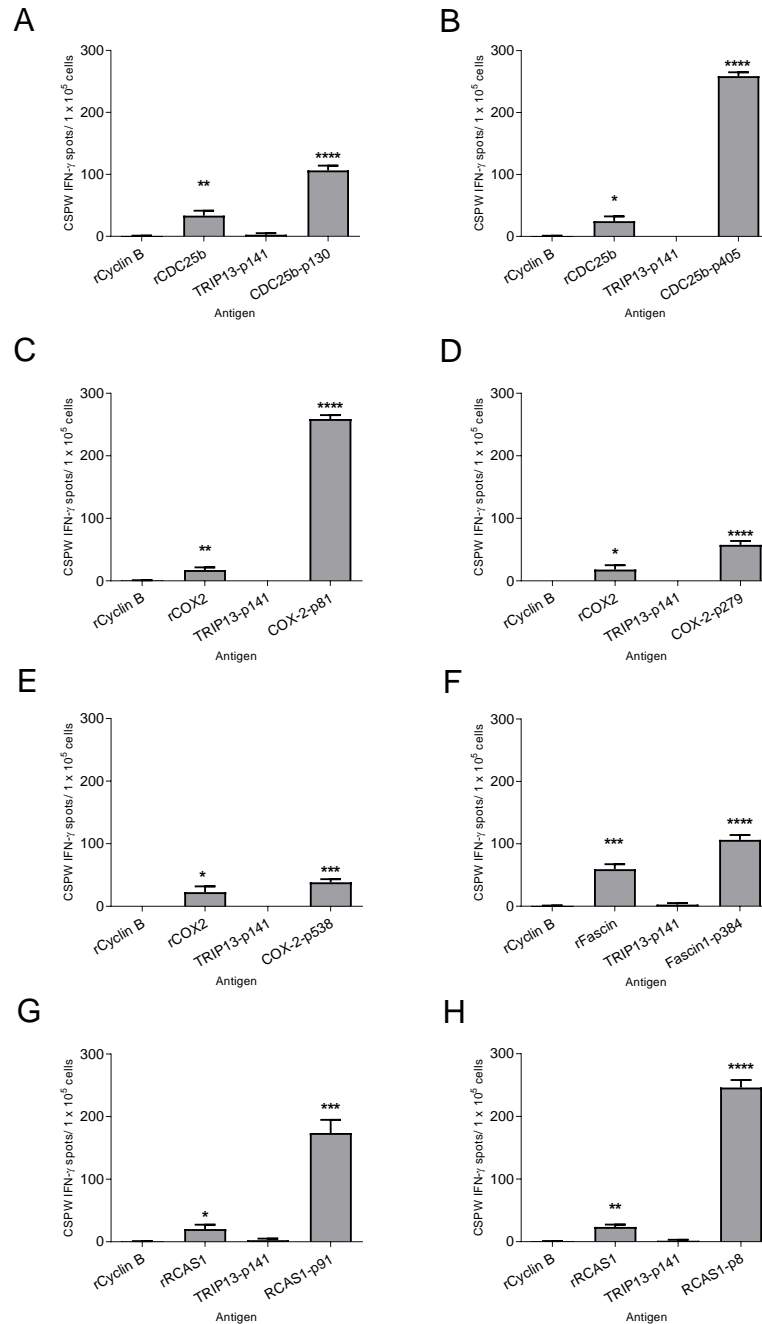
Supplemental Table 1. Predicted MHC Class II binding epitopes

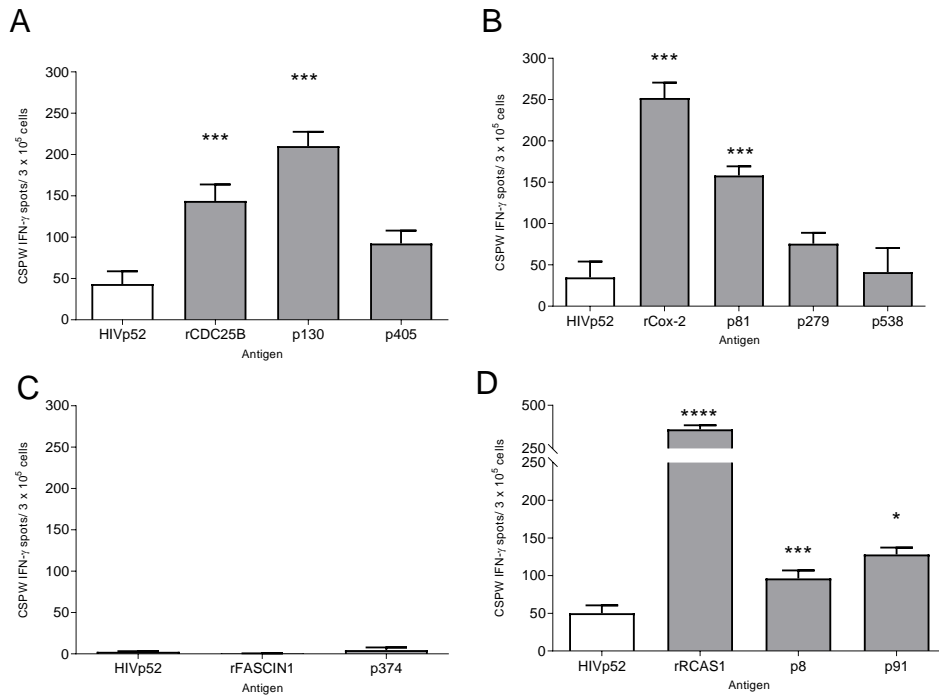| Protein	number	# aa	sequence	% Homology of peptide with mouse
CDC25B	p130-150	21	qaiqaasriirneqfairrfq	78%
	p405-427	23	vdgkhqdlkyispetmvalltgk	100%
COX2	p81-96	16	fkgfwnvvnnipflrn	87%
	p279-295	17	glvpglmmyatiwlreh	100%
	p538-553	16	gevgfqiintasiqslic	94%
FASCIN1	p374-p398	25	elflmklinrpiivfrgehgfigcr	100%
	p136-p154	19	iamhpqvniysvtrkryah	100%
	p21-p40	20	nkyltaeafgfkvnasassl	100%
	p190-p209	20	tadhrflrhdgrlvarpepa	95%
RCAS1	p8-p27	20	lfkfctclatvfsflkrlic	95%
	p91-p110	20	epdyfkdmtptirktqkivi	100%
	p126-148	23	gfssrlaatqdlpfihqsselgd	96%
	p161-181	21	eeedaawqaeevlrqqkladr	95%

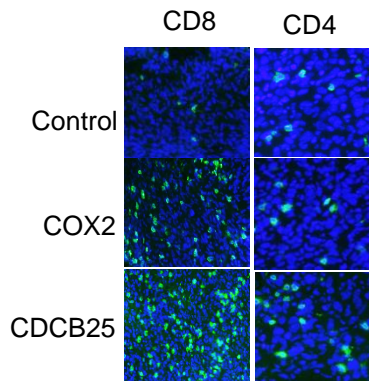Orange highlighted epitopes were validated as responding to protein.

Supplemental Figure 1. Example Western blot validation of IgG antibody response to colorectal cancer antigens. (A) CDC25B; 62kD (B) COX2; 115kD (C) FASCIN1; 60 kD and (D) RCAS1; 50kD. (I) polyclonal antibody specific for the antigen, (II) a representative ELISA positive patient sample, (III) an ELISA negative subject sample. Molecular weight protein marker (far left).

Supplemental Figure 2. Epitope-specific Th1 respond to naturally processed protein. IFN-γ ELISPOT cSPW (corrected spots per well) for (A) CDC25B-p130-specific T-cells, (B) CDC25B-p405specific T-cells, (C) COX2-p81-specific T-cells, (D) COX2-p279-specific T-cells, (E) COX2-p538-specific T-cells, (F) Fascin-p384 specific T-cells, (G) RCAS1-p91-specific T-cells and (H) RCAS1-p8-specific T-cells stimulated with the expansion peptide or corresponding recombinant protein. TRIP13-p141 and recombinant Cyclin B are used as negative peptide and protein controls, respectively; ****$p<0.0001$, ***$p<0.001$, **$p<0.01$, *$p<0.05$.

Supplemental Figure 3. CDC25B, COX2, RCAS1, but not FASCIN1 peptides and protein elicit an Th1 response in mice. Mean (±SEM) IFN-γ corrected spots per well (CSPW) when splenocytes were stimulated with the indicated antigen after vaccination with peptides derived from (A) CDC25B, (B) COX2 (C) FASCIN1, and (D) RCAS1. *p<0.05, ***p<0.001, ****p<0.0001 as compared to the negative control HIVp52 peptide.

Supplemental Figure 4. Representative immunohistochemistry for CD8 and CD4 on tumors collected from the colon after immunization with the indicated vaccine. Positive T-cells are stained green and all cells are stained blue.