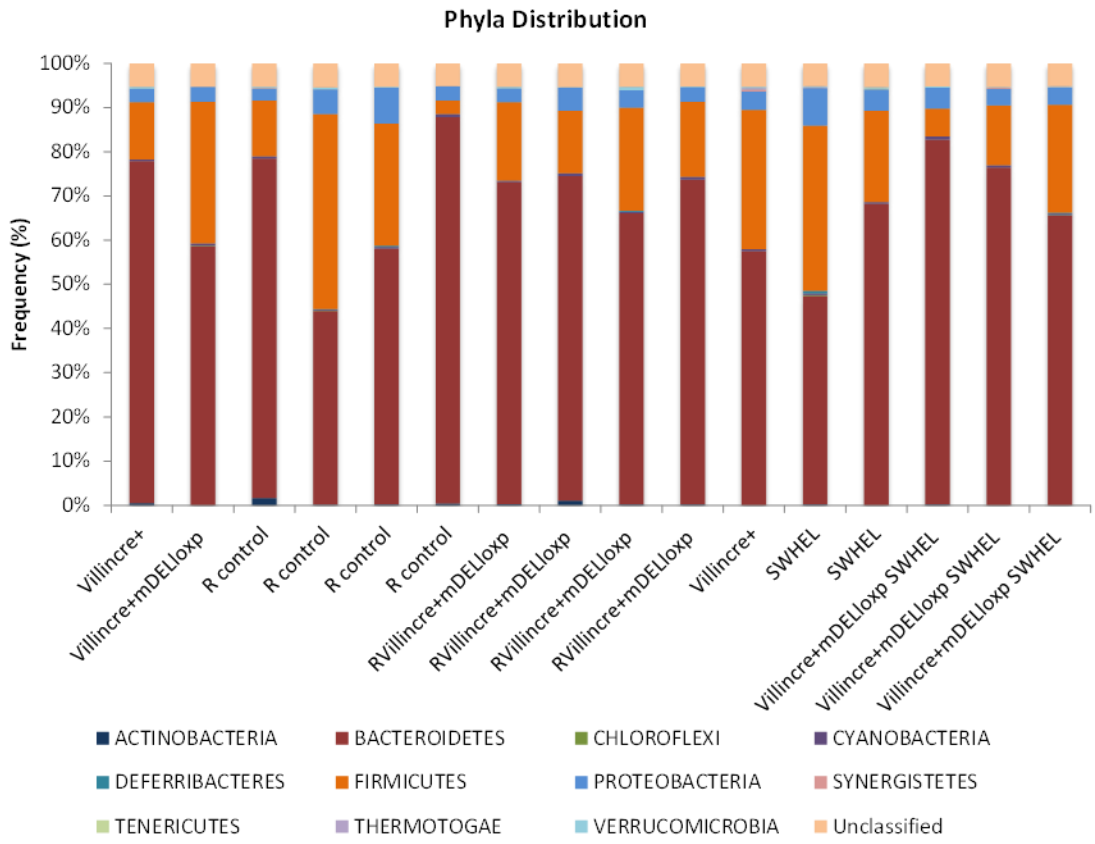
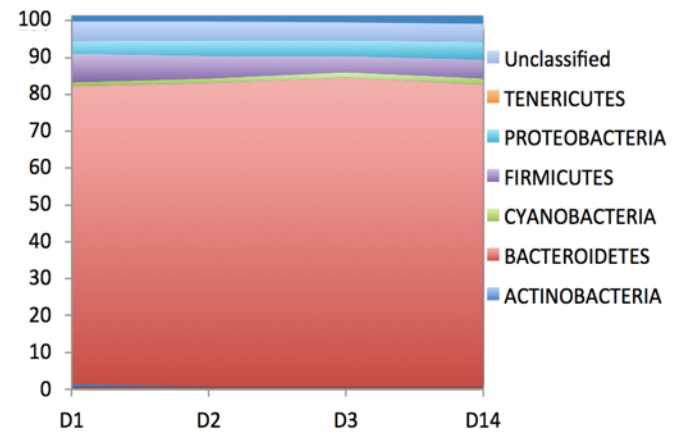


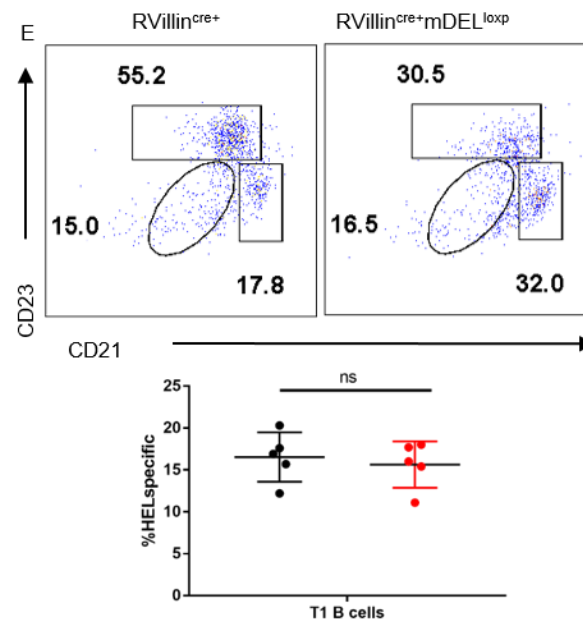
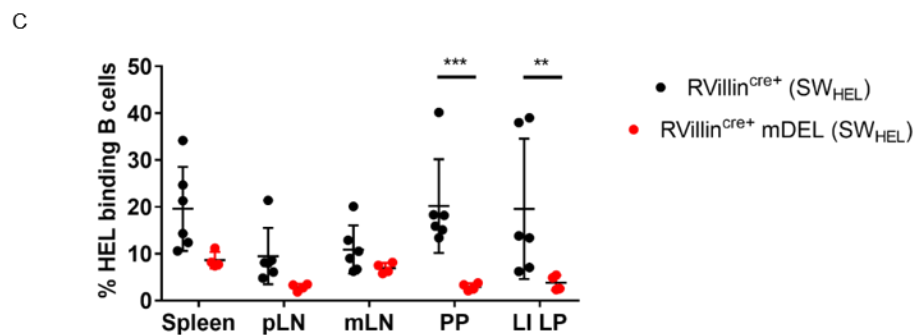
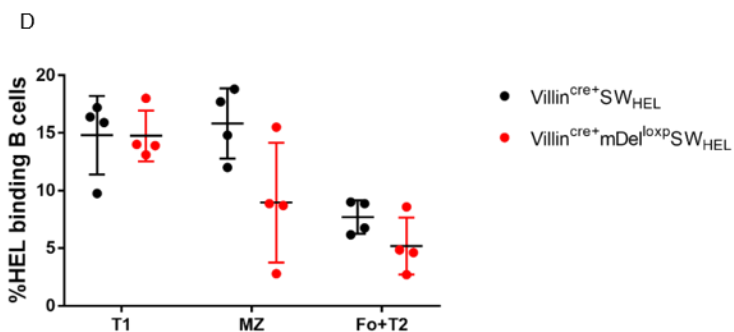
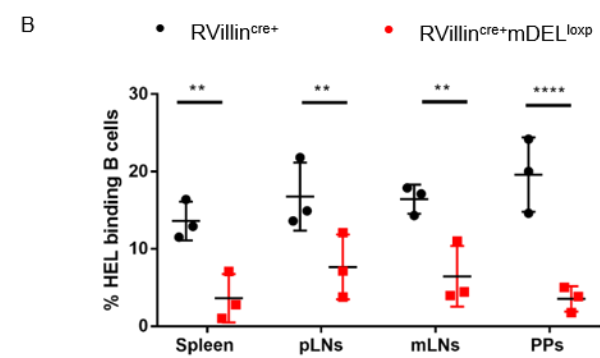
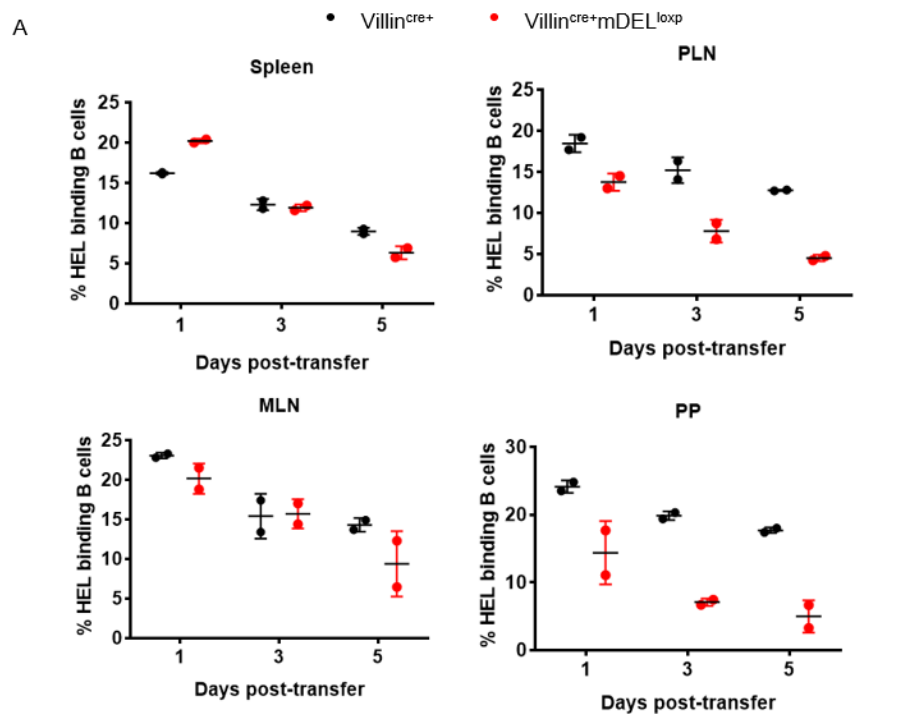
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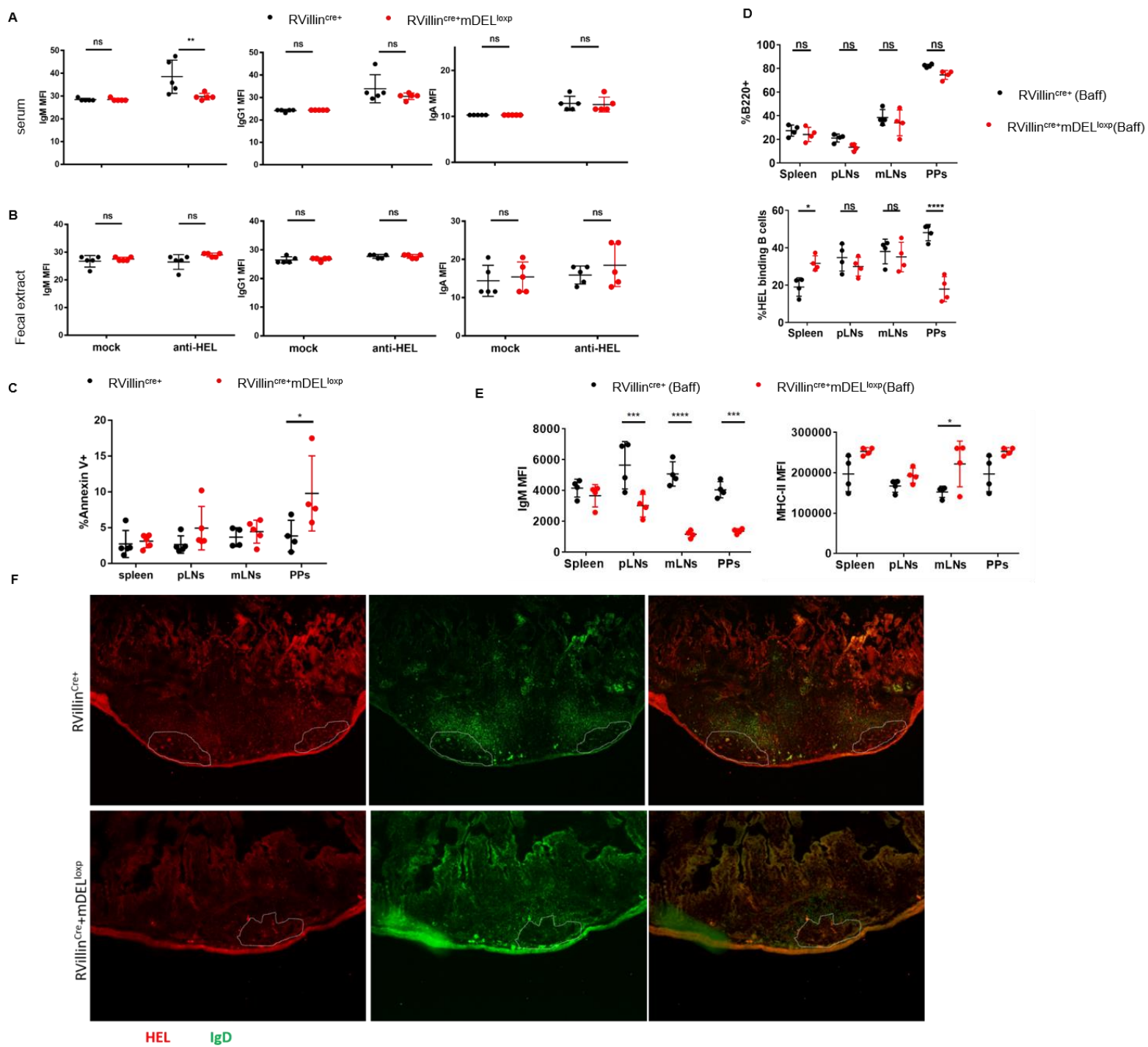


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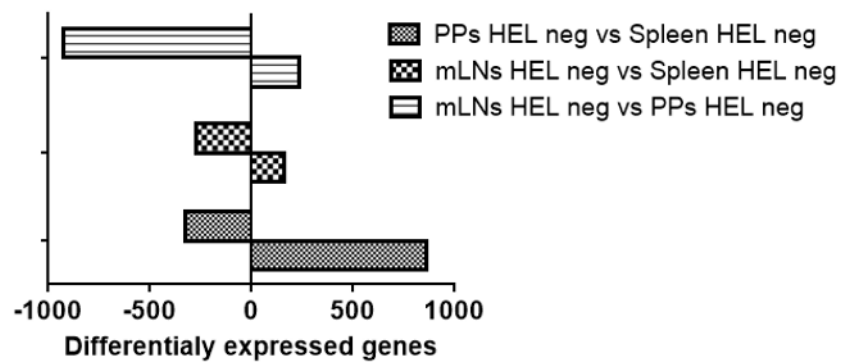


Bacteria phyla distribution over a 14 day period after administration of 25 mg of HEL at day zero

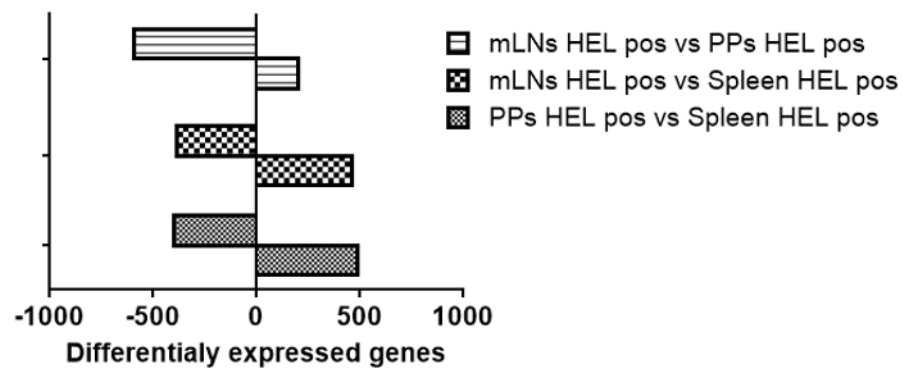




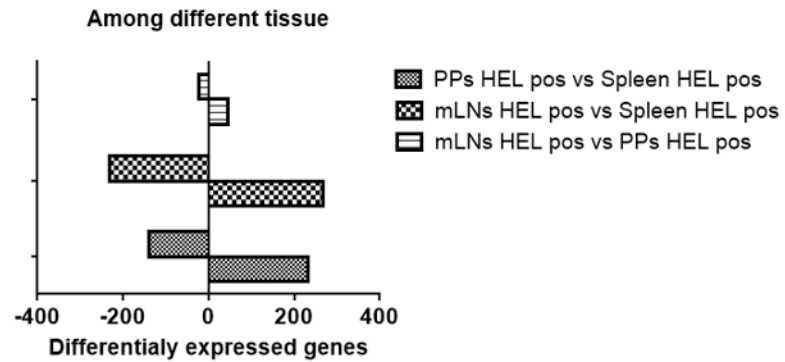
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B

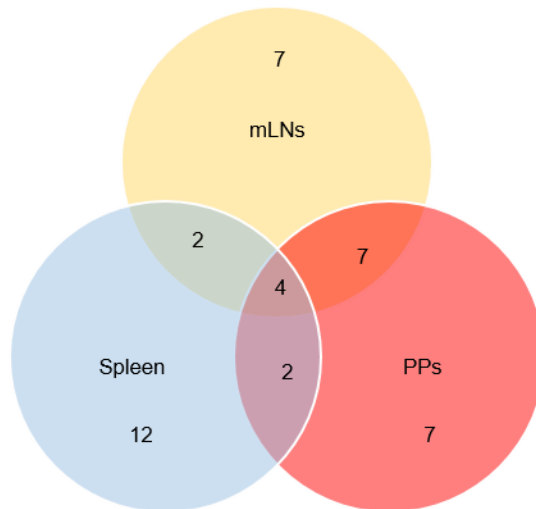


A



BCL2-HEL specific cells

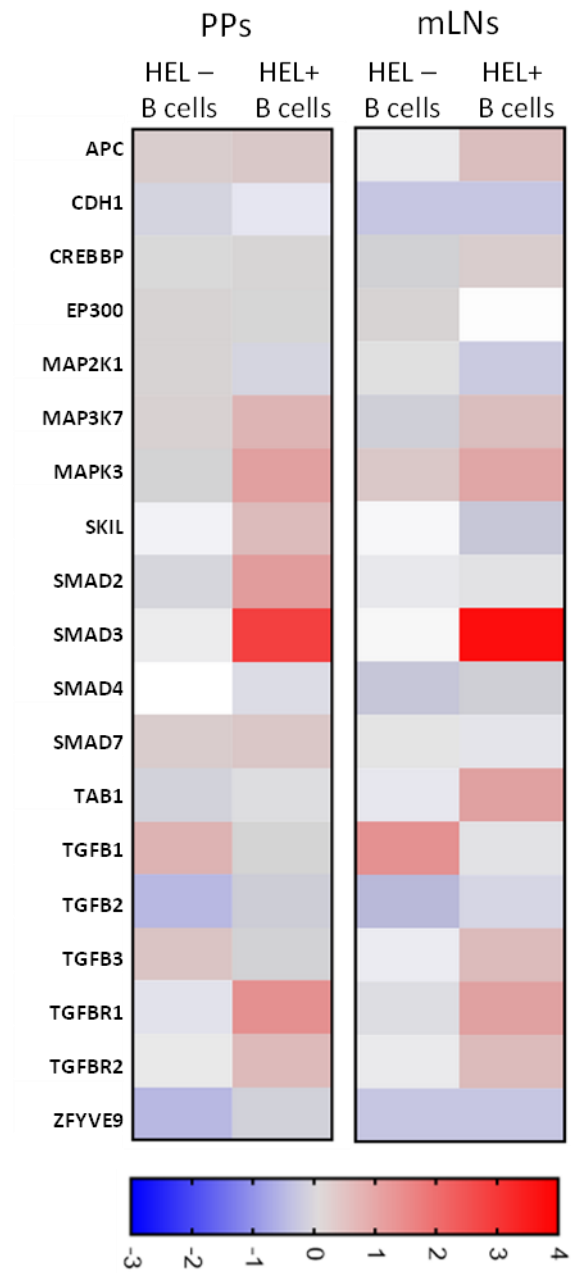
B



Unique Pathways in BCL2-HEL specific cells in PPs

*Stimulation of TGF-beta signaling in lung cancer**TGF-beta-dependent induction via SMADs**TGF-beta-dependent induction via MAPK**HBV-dependent transcription regulation leading to HCC**Inhibition of TGF-beta 1 signaling in early colorectal cancer**Development\_ERK5 in cell proliferation and neuronal survival**FoxO signaling pathway*

A



A

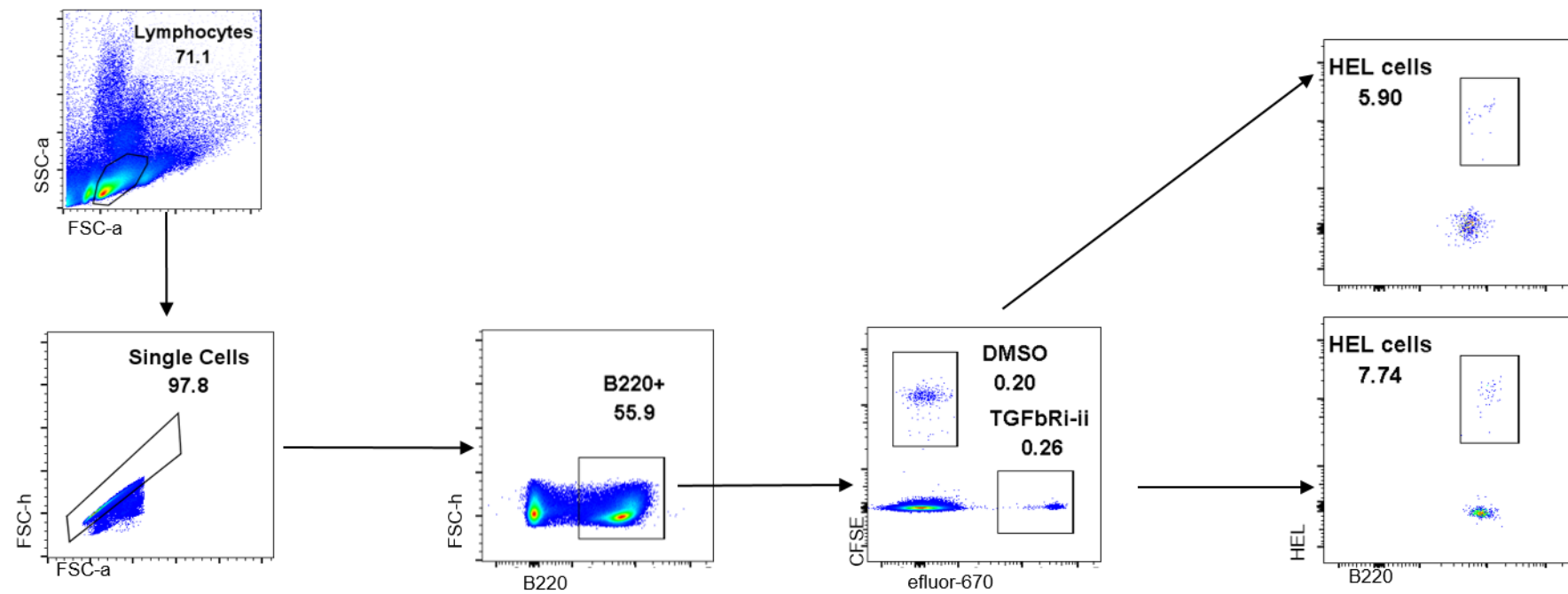


Table 1

Category	Criterion	Definition	Score Value1	RVillinCre+ (Bcl2)						RVillinCre+mDELloxp (Bcl2)								
				950	937	927	498	504	511	926	925	922	920	500	502	503		
I, Inflammatory cell infiltrate	Severity	Leukocyte density of lamina propria area infiltrated in evaluated hpf:																
		Minimal: <10%	1	1		1	1	1		1	1		1		1		1	
		Mild: 10-25%; scattered neutrophils	2						2								2	
		Moderate: 26-50%	3															
	Marked: >51%; dense infiltrate	4										2						
	Extent	Expansion of leukocyte infiltration:																
		Mucosal	1	1		1	1	1		1	1		1		1		1	
Mucosal and submucosal		2						2				2			2			
	Mucosal, submucosal and transmural	3																
II, Epithelial changes2	Hyperplasia	Increase in epithelial cell numbers in longitudinal crypts relative to baseline epithelial cell numbers per crypt; visible as crypt elongation:																
		Minimal: <25%	1	1				1	1			1	1					
		Mild: 25-35%	2 or 3							2							3	
		Moderate: 36-50%; mitoses in middle/upper third of crypt epithelium, distant from crypt base	3 or 4															
	Marked: >51%; mitoses in upper third of crypt epithelium, distant from crypt base	4 or 5																
	Goblet cell loss	Reduction of goblet cell numbers relative to baseline goblet cell numbers per crypt:																
		Minimal: <20%	1 or 2	1		1	1		1	1	1	2	1	1				
		Mild: 21-35%	2 or 3															
		Moderate: 36-50%	3 or 4															
	Marked: >50%	4																
	Cryptitis	Neutrophils between crypt epithelial cells	2 or 3	2			2		2	2		2	2					
	Crypt abscesses	Neutrophils in crypt lumen	3 to 5															
	Erosion	Loss of surface epithelium	1 to 4															
III, Mucosal architecture2	Ulceration	Epithelial defect reaching beyond muscularis mucosae	3 to 5															
		Connective tissue repair with new capillaries, surrounded by spindle-shaped fibroblasts, myofibroblasts, macrophages, neutrophils and mononuclear cells as well as cell debris; pseudopolyps: villiformous, hypertrophied areas projecting into the lumen	4 or 5															
	Irregular crypts	Non-parallel crypts, variable crypt diameters, bifurcation and branched crypts	4 or 5															
	Crypt loss	Mucosa devoid of crypts	4 or 5															
	Villous blunting	Mild: villous-to-crypt-length ratio of 2:1 to 3:1	1 to 3														3	3
		Moderate: villous-to-crypt-length ratio of 1:1 to 2:1	2 to 4								1							
		Villous atrophy	3 to 5							1			1					3
	Total		6	0	0	5	5	3	9	8	3	10	6	11	8			