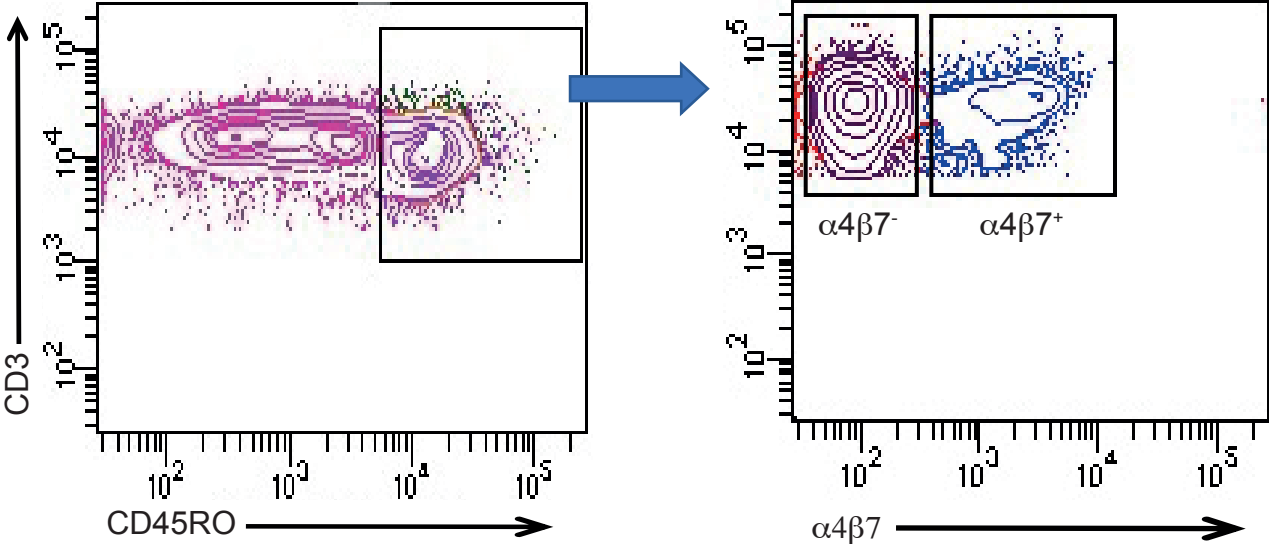


Supplementary Figure 1



**Supplementary Table 1: Total and unique rearrangements in the three groups.** SEM, standard error of mean.

	<b>Control</b>		<b>UC</b>		<b>CD</b>	
	$\alpha 4\beta 7^-$	$\alpha 4\beta 7^+$	$\alpha 4\beta 7^-$	$\alpha 4\beta 7^+$	$\alpha 4\beta 7^-$	$\alpha 4\beta 7^+$
Total templates (mean $\pm$ SEM)	306,313 $\pm$ 16,143	114,705 $\pm$ 34,072	258,725 $\pm$ 24,317	186,813 $\pm$ 19,937	35,555 $\pm$ 3,498	29,479 $\pm$ 2,794
Unique templates (mean $\pm$ SEM)	138,764 $\pm$ 19,544	65,675 $\pm$ 16,966	121,900 $\pm$ 7,748	117,100 $\pm$ 12,581	21,234 $\pm$ 2,264	21,085 $\pm$ 2,983

Supplementary Table 2: Shared clones between  $\alpha 4\beta 7^-$  and  $\alpha 4\beta 7^+$  sub-populations in each group.

		<b>C1</b>	<b>%</b>	<b>C2</b>	<b>%</b>	<b>C3</b>	<b>%</b>	<b>C4</b>	<b>%</b>	<b>C5</b>	<b>%</b>
<b><math>\alpha 4\beta 7^+</math></b>	1	CATSRELGGHEQYF	3.4%	CASSDWRNGYTF	0.7%	CASSVGGYGGYTF	2.7%	CSARAVVDQPQHF	0.3%	CASSSSAGAIEQYF	3.3%
	2	CASRERGLSNEQFF	2.0%	CASSVHTEAFF	0.6%	CASSYNPEPGELEFF	0.5%	CASTIDPTGDRYGYTF	0.3%	CASSPPSGSYEQYF	1.9%
	3	CASSFRDSYEQYF	0.9%	CASSLAEGDYGYTF	0.3%	CSAVKREVYNEQFF	0.5%	CSVEDGTNEQYF	0.3%	CASSLGLAGGYEQFF	1.1%
	4	CASSYTGLAGGNEQFF	0.6%	CASSSGGLAGDDTGELFF	0.2%	CASSPGTGETGELFF	0.5%	CASSLYGSDYEQYF	0.2%	CASRAGQSEAFF	0.7%
	5	CASSDYITNEKLFF	0.6%	CASSYNYQGSKGYTF	0.1%	CASSVAGTSYEQYF	0.5%	CASSLGTSGSGANVLTFF	0.2%	CATSRGAKNIQYF	0.6%
	6	CASGGQGNNGANVLTFF	0.6%	CASSQEQGLDEQYF	0.1%	CASSEGGDGNQPQHF	0.4%	CASSHRQGENTEAFF	0.2%	CASSPSLANTEAFF	0.5%
	7	CASSHKRTGGAETQYF	0.6%	CASSEDPGANVLTFF	0.1%	CASSLGGALYEQYF	0.3%	CASSDQGGNQPQHF	0.2%	CASSRDKGEAFF	0.5%
	8	CASSLGGEKLFF	0.6%	CASSTQPGEKLFF	0.1%	CASSPRATDEQFF	0.3%	CASSYTGTSAETQYF	0.2%	CASSATGTNEQFF	0.4%
	9	CASSLAGTYEQYF	0.5%	CSAVSLFSGGKNQPQHF	0.1%	CASSDGTENSPLHF	0.3%	CASSGQDTGELFF	0.1%	CASSLWDRNEKLFF	0.4%
	10	CASSEWTGKQPQHF	0.4%	CASSLGLYNSPLHF	0.1%	CASSEGAGGSTDTQYF	0.2%	CASSSGTDAGELFF	0.1%	CASRDHEQPQHF	0.3%
<b><math>\alpha 4\beta 7^-</math></b>	1	CASTVNYSNQPQHF	1.9%	CASSVHTEAFF	0.3%	CASSVGGYGGYTF	0.5%	CASSLGTSGSGANVLTFF	0.9%	CASSLGLAGGYEQFF	2.2%
	2	CASSPRRSSIHENSGNTIYF	1.4%	CASKDRGHNSQPQHF	0.2%	CASSEFAENTEAFF	0.2%	CASSYTGTSAETQYF	0.5%	CASRDHEQPQHF	1.2%
	3	CASSPNYSNQPQHF	0.7%	CSVVSGGGETQYF	0.2%	CSARAPSSAGYTF	0.2%	CASSEGAETNTEAFF	0.3%	CASSPTSASYEQYF	0.9%
	4	CASSPGGVSEAFF	0.6%	CAWSDGTGATVGYEQYF	0.2%	CASSYERSSYNEQFF	0.2%	CARSLGDRVIYEQYF	0.2%	CASRAGQSEAFF	0.9%
	5	CASSPNYSNQPQHF	0.4%	CSVRDANEAFF	0.2%	CASSPRTSGSLSGEEQFF	0.2%	CASSPRGGRANYGYTF	0.2%	CASRSLEQQQFF	0.8%
	6	CSARDWASGVFTDTQYF	0.3%	CASSPPGGRWEKLFF	0.1%	CSAVKREVYNEQFF	0.2%	CASMTRMGVYGYTF	0.2%	CAISEGLQNYGYTF	0.7%
	7	CASSHKRTGGAETQYF	0.3%	CASSEIAGTGGYGYTF	0.1%	CASSDGTENSPLHF	0.1%	CASSEGAHTEAFF	0.2%	CASSPPAERKLFF	0.5%
	8	CASMLAGPEQFF	0.2%	CASSYVPDHWYGYTF	0.1%	CASSYQTGASQPQHF	0.1%	CASSQYGGNEQFF	0.2%	CASSRLASETQYF	0.3%
	9	CASSEVIGYSNQPQHF	0.2%	CASSESRPAGGPSYNEQFF	0.1%	CASSLSTGVYEQYF	0.1%	CASSGQDTGELFF	0.2%	CASSTQGNEQFF	0.3%
	10	CASSRGRIADTQYF	0.2%	CASSQSGHSGNTIYF	0.1%	CASSPGTGETGELFF	0.1%	CASSRLAGGNTGELFF	0.2%	CASSQKLAETQYF	0.3%

		UC1	%	UC2	%	UC3	%	UC4	%	UC5	%	UC6	%
<b>α4β7+</b>	1	CASSIGTAEQYF	2.7%	CSVEAISPWRAGGELFF	1.4%	CAWRVGSNTGELFF	0.7%	CASSYTVRPNYGYTF	0.6%	CASSLGQDGYTF	1.8%	CASSMIRPSRGPQHF	1.2%
	2	CASSPPGTGDEAFF	1.2%	CASSGPGQAGHFNYGYTF	0.9%	CAWSAGGVSYEQYF	0.4%	CSAATGGNGYTF	0.4%	CASSLTSYTDQYF	1.3%	CASSQDVQGFSEYEQYF	0.4%
	3	CASSLGQAYEQYF	0.9%	CASTNDGNTTEAFF	0.8%	CASSLGPTTEAFF	0.4%	CASSYSGTGRGTEAFF	0.3%	CASSLGGALTEAFF	1.2%	CASSIGVEQQHF	0.3%
	4	CASRTTKNWNNGYTF	0.7%	CASPTLTGALGATEAFF	0.4%	CASSFIRAGTDQYF	0.3%	CAISTGDSNQPQHF	0.3%	CASSEGSNQPQHF	0.9%	CASSIGTDTQYF	0.3%
	5	CATSWTWTGELFF	0.7%	CASGLDLREQYF	0.4%	CASSLPGANVLTFF	0.3%	CASSLNPNTGELFF	0.2%	CASSYSSQGGNIQYF	0.9%	CASSLRGGSPLHF	0.3%
	6	CASSEGGAYEQYF	0.6%	CASSSGVVGPLHF	0.3%	CASSYSLVWLSFDEQYF	0.3%	CASSADSLGAGELFF	0.2%	CASSRQSYNEQFF	0.8%	CASYSTEYEQYF	0.2%
	7	CASSVALGTWDTQYF	0.6%	CASSFKQGGSYEQYF	0.2%	CASSPRLAGGTYEQYF	0.3%	CASSEKPEANEQFF	0.2%	CASSLGLQETQYF	0.6%	CASIRAVADVTIYF	0.2%
	8	CASSAGQGVTEYEQYF	0.5%	CASSPRENTEAFF	0.2%	CASSQFLFEQYF	0.3%	CASSLGESTE AFF	0.1%	CASSQARAANRERANTGELFF	0.6%	CASSIGTAEQYF	0.2%
	9	CASLTVSGTPDYNEQFF	0.4%	CASSFGTGAYGYTF	0.2%	CASSHVSGGAEAFF	0.2%	CASSARLAGPNEQFF	0.1%	CASGRQGWTEAFF	0.5%	CASSEESGSYNEQFF	0.2%
	10	CASRDRMGQPQHF	0.4%	CASSLSPLAEAFF	0.2%	CASKQFSGNTIYF	0.2%	CASRPDLTEAFF	0.1%	CASSFDTYTDQYF	0.4%	CASSLPGGPQDEAFF	0.2%
<b>α4β7-</b>	1	CASSVALGTWDTQYF	3.1%	CASSFKQGGSYEQYF	0.3%	CASSFIRAGTDQYF	1.9%	CASSYTVRPNYGYTF	0.3%	CASSLGLQETQYF	9.5%	CASRRDNEQFF	0.4%
	2	CASSQDLGGSGELFF	1.4%	CASSFKQGGSYEQYF	0.3%	CASSLFRGNTGELFF	1.0%	CASSFVGELFF	0.3%	CASSYSSQGGNIQYF	3.7%	CASSQEGYYGYTF	0.2%
	3	CSVELWQGDYGYTF	1.2%	CSVEAISPWRAGGELFF	0.2%	CAWRVGSNTGELFF	1.0%	CSAATGGNGYTF	0.2%	CASSEVEQYHEQFF	3.4%	CASSFSLGQWLVFGEAFF	0.2%
	4	CASILSGGADTQYF	0.9%	CASTNDGNTTEAFF	0.2%	CATRDWAAGELFF	0.4%	CASSIITVFSNQPQHF	0.2%	CSARDSRQETQYF	1.3%	CASSWGVGNQPQHF	0.1%
	5	CASSHDPGLANEELFF	0.8%	CASSVGLAGSNTGELFF	0.1%	CSVVDSOSSNYEQYF	0.3%	CASSLNPNTGELFF	0.2%	CASSLGQDGYTF	0.8%	CASSPPRQGRSNQPQHF	0.1%
	6	CASPTGQGDGELFF	0.8%	CASSTRGRAGTGELFF	0.1%	CAWSAGGVSYEQYF	0.3%	CSALKGRADEAFF	0.2%	CASSERGTGRWEQYF	0.7%	CASSQDVQGFSEYEQYF	0.1%
	7	CASSRQGSYNEQFF	0.7%	CASGLDLREQYF	0.1%	CSASGDSNQPQHF	0.2%	CASSLWTDQPQHF	0.2%	CSAQPDRNSYEQYF	0.6%	CATSREYRGTEAFF	0.1%
	8	CASRTGPNSEAFF	0.6%	CASSGPGQAGHFNYGYTF	0.1%	CASSLPGANVLTFF	0.2%	CASRQQGMNTEAFF	0.1%	CAHEGAHGPEYEQYF	0.6%	CASSRSGPNYGYTF	0.1%
	9	CASRTTKNWNNGYTF	0.6%	CSVFDRAEAFF	0.1%	CSVGTGRDYGYTF	0.2%	CASSARLAGPNEQFF	0.1%	CASSFDTYTDQYF	0.5%	CASSEGRAFF	0.1%
	10	CASKDALNTEAFF	0.6%	CASRFKQGGSYEQYF	0.1%	CASSLGPTTEAFF	0.2%	CASSADSLGAGELFF	0.1%	CAIRGVGVGSSYEQYF	0.4%	CASSMIRPSRGPQHF	0.1%

		CD1	%	CD2	%	CD3	%	CD4	%	CD5	%
<b>α4β7<sup>+</sup></b>	1	CASSSQVTGELFF	5.2%	<b>CASRGPGEQYF</b>	2.7%	<b>CASNVGTFGGTEAFF</b>	0.4%	CASTPGLAVLEQYF	0.5%	<b>CASSFIASDSYEQYF</b>	6.4%
	2	<b>CASSLESGRPEYQYF</b>	2.9%	CASSYGDNSPLHF	0.7%	CASGHRGQGFTGELFF	0.3%	CSVEDLAGGFYEQYF	0.3%	<b>CAWTRPPDTEAFF</b>	1.2%
	3	<b>CASSQRAVGELFF</b>	2.0%	CASSPPTNYGYTF	0.6%	CASSYKEGGGNQPQHF	0.2%	<b>CASGSGQGEVADTQYF</b>	0.3%	<b>CASIRPGLANTGELFF</b>	1.1%
	4	<b>CASSVRTVSVNEQFF</b>	1.4%	CASSGARLSGANVLTFF	0.6%	CASSRTGEGYTF	0.2%	CSANDRARHREWEQYF	0.3%	CASSYVGVGQDRSYEQYF	1.0%
	5	CASSQERRGGARETQYF	1.4%	CAYRPSSYEQYF	0.3%	CSVVLYLSTDTQYF	0.2%	CASSPRLTNEKLFF	0.3%	CASSQEVLAEPFYEQFF	0.9%
	6	CSAKGTSGVDYVEQYF	1.4%	CASSDSMSYSYNEQFF	0.2%	CSVGTGGTNEKLFF	0.1%	CASSYSGTGNTGELFF	0.3%	CASSVGQDTEAFF	0.9%
	7	<b>CASSLGGTVNTEAFF</b>	1.1%	CASSEGESGNTIYF	0.2%	CASSLAGLEKLFF	0.1%	CASSIGTDTQYF	0.2%	CASSEYGYEQYF	0.6%
	8	<b>CSVEGGQYEQYF</b>	1.1%	CASRDKLNTEAFF	0.2%	CAWSTGGSYNEQFF	0.1%	CAFHEPASSYEQYF	0.2%	CASSENSGLSPLHF	0.5%
	9	<b>CSVEGGSSYEQYF</b>	1.0%	CASSYGREVDTQYF	0.2%	<b>CASSQRTSSYNEQFF</b>	0.1%	<b>CASSPGTSGTNPYQETQYF</b>	0.2%	<b>CASSYDFRGEKLFF</b>	0.5%
	10	CASSWGQGNLPLHF	0.7%	CASSDSAEAGELFF	0.2%	CATQGAYEQYF	0.1%	CASSIGTDTQYF	0.2%	CASSESTGTNYGYTF	0.5%
<b>α4β7<sup>-</sup></b>	1	CASGSGGTTDTQYF	4.3%	<b>CASRGPGEQYF</b>	1.6%	<i>CSVVGNSGTDPYEQYF</i>	0.5%	CASSLTGGVNTEAFF	1.5%	<b>CASSFIASDSYEQYF</b>	4.5%
	2	CASSFAGGHSNEQFF	3.6%	CASNAGYSNPQHF	0.9%	<b>CASNVGTFGGTEAFF</b>	0.2%	<b>CASSPGTSGTNPYQETQYF</b>	0.9%	<b>CAWTRPPDTEAFF</b>	1.0%
	3	<b>CSVEGGQYEQYF</b>	2.8%	CSARDGRDTEAFF	0.4%	CSVRPGTRSTEAFF	0.2%	<b>CASSDRGGTGELFF</b>	0.7%	CASSQDHGLEGYTF	0.6%
	4	<b>CASSLGGTVNTEAFF</b>	2.2%	CASSFSGDNEQFF	0.3%	CASSLVLGNTIYF	0.1%	<b>CASSPGTTYEQYF</b>	0.5%	CASSYSDSPVSSYEQYF	0.6%
	5	CASSSRAGGMNTEAFF	2.0%	CASSTAPGLQETQYF	0.3%	CASGWASGRAGETQYF	0.1%	CASSPYRAGDITIYF	0.4%	CSASKEQNGYGYTF	0.6%
	6	<i>CASRYGGAGALSYEQYF</i>	2.0%	CASSLGLAERSYEQYF	0.3%	CASSNRVNSPLHF	0.1%	CASSERGGGNTEAFF	0.3%	<b>CASIRPGLANTGELFF</b>	0.5%
	7	<b>CSVEGGSSYEQYF</b>	2.0%	CASSPLNGYGEPQHF	0.2%	CASSQAETQYF	0.1%	CASSVLTSTDTQYF	0.3%	CASSPRVHGTYF	0.4%
	8	CASSLGNQGRTEQYF	1.7%	CASSDRDTGELFF	0.2%	CASSELSGGDEKLFF	0.1%	CASSEGGMAGYQETQYF	0.2%	CASSLEVVALNYGYTF	0.4%
	9	CASSQERRGGARETQYF	1.5%	CASSPLDSQPQHF	0.2%	CASSQPGTEAFF	0.1%	CASSPPGGGMDEQYF	0.2%	<b>CASSYDFRGEKLFF</b>	0.4%
	10	<b>CASSLESGRPEYQYF</b>	1.4%	CSAGTGDEAFF	0.2%	<b>CASSQRTSSYNEQFF</b>	0.1%	<b>CASGSGQGEVADTQYF</b>	0.2%	CAWSPPLAVNEQFF	0.4%