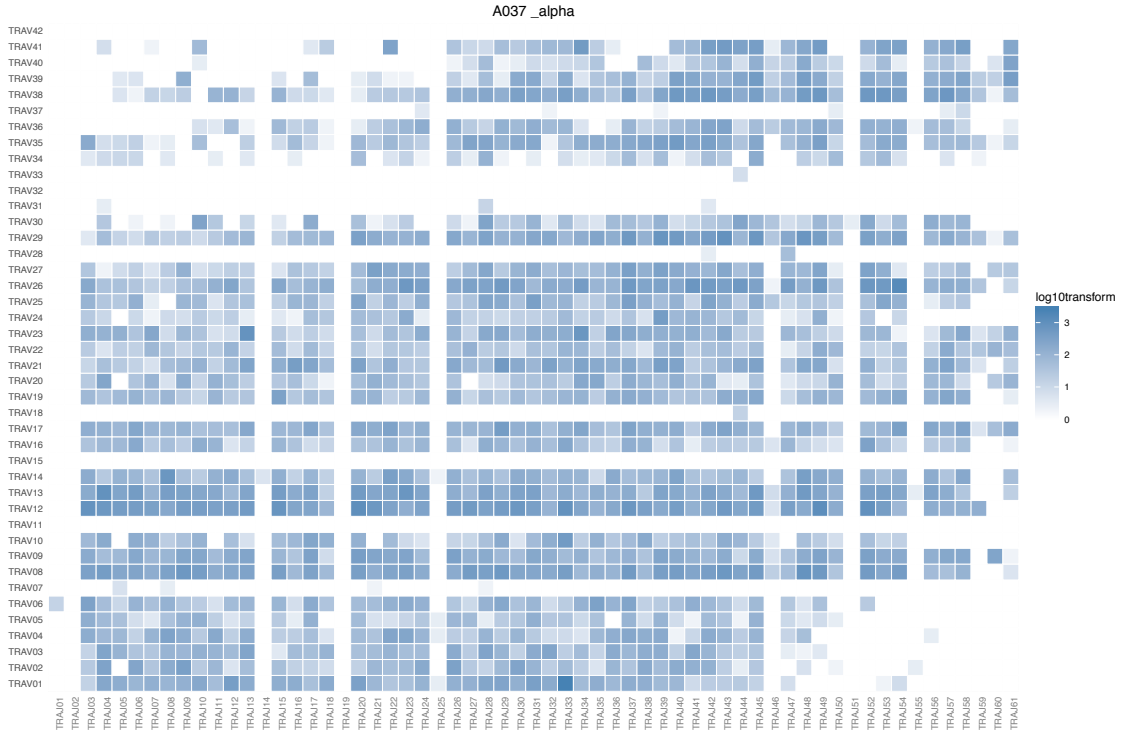
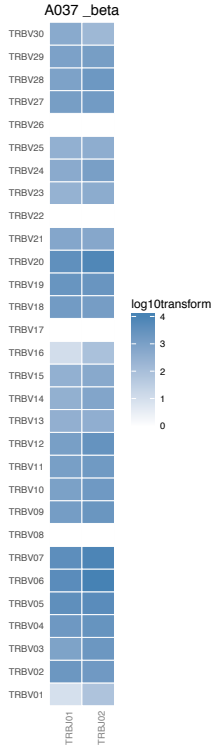
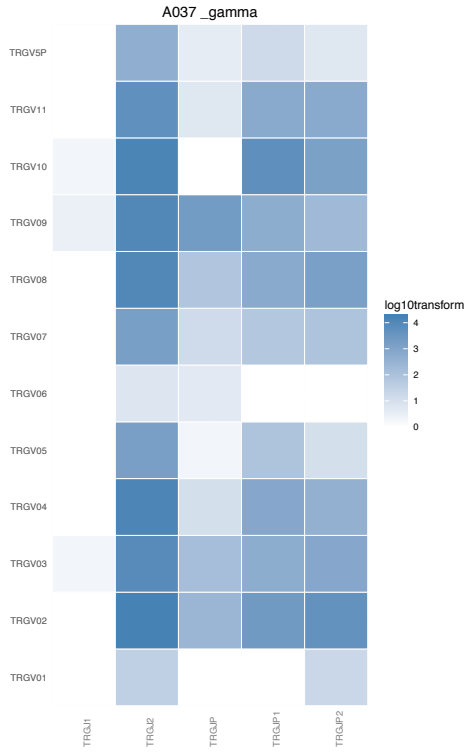
Supplemental Figure 1. T-cell VJ rearrangement repertoire of a polyclonal donor.



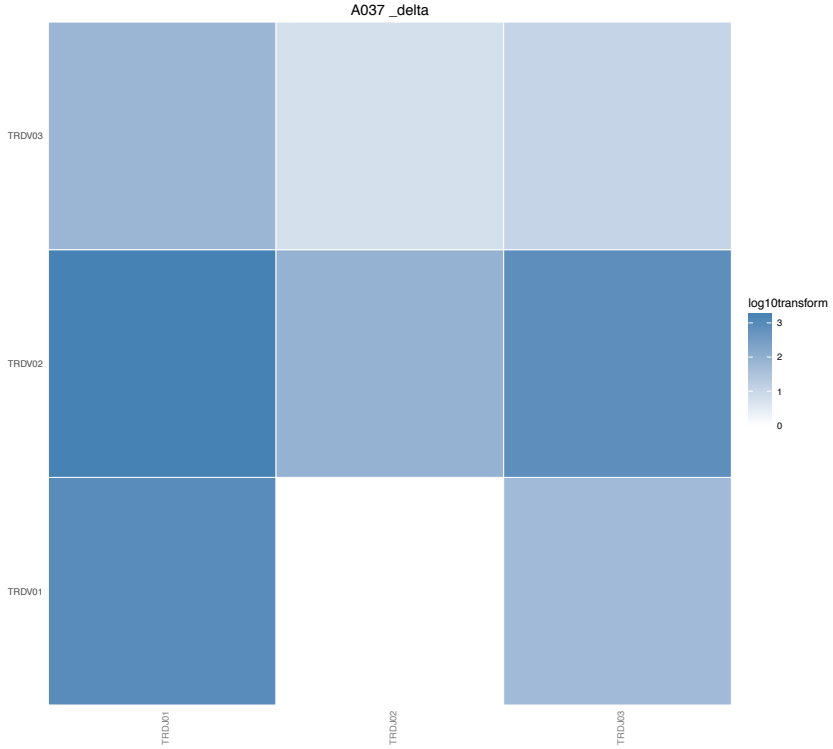
(A) A037 healthy reference sample: Unique alpha chain VJ combinatorial counts.



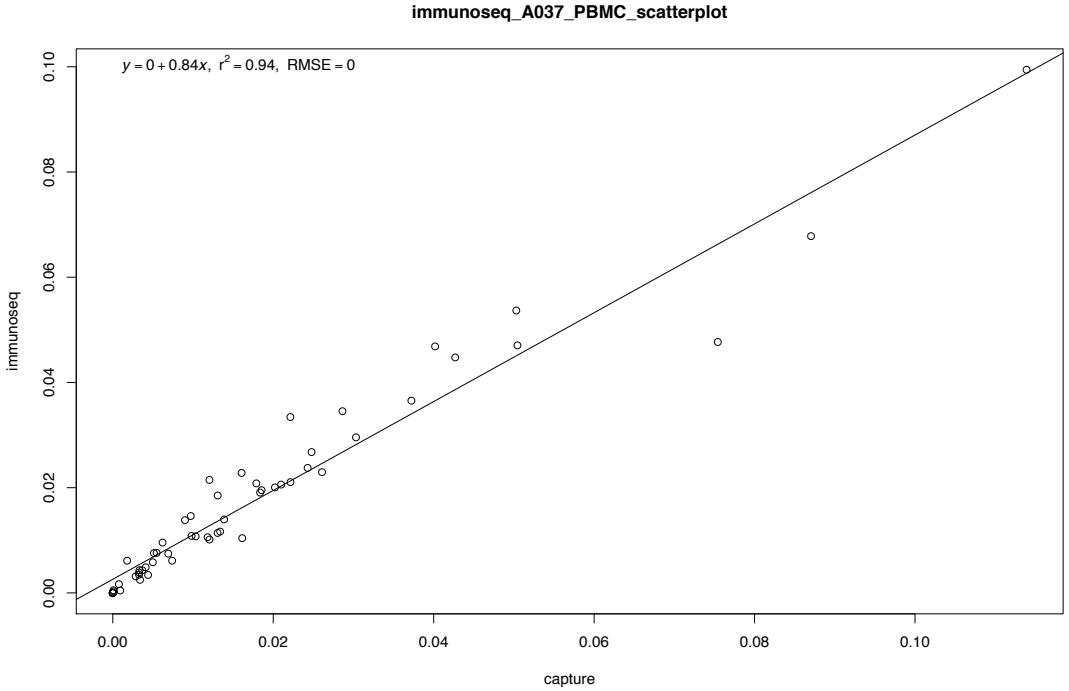
(B) A037 healthy reference sample: Unique beta chain VJ combinatorial counts.



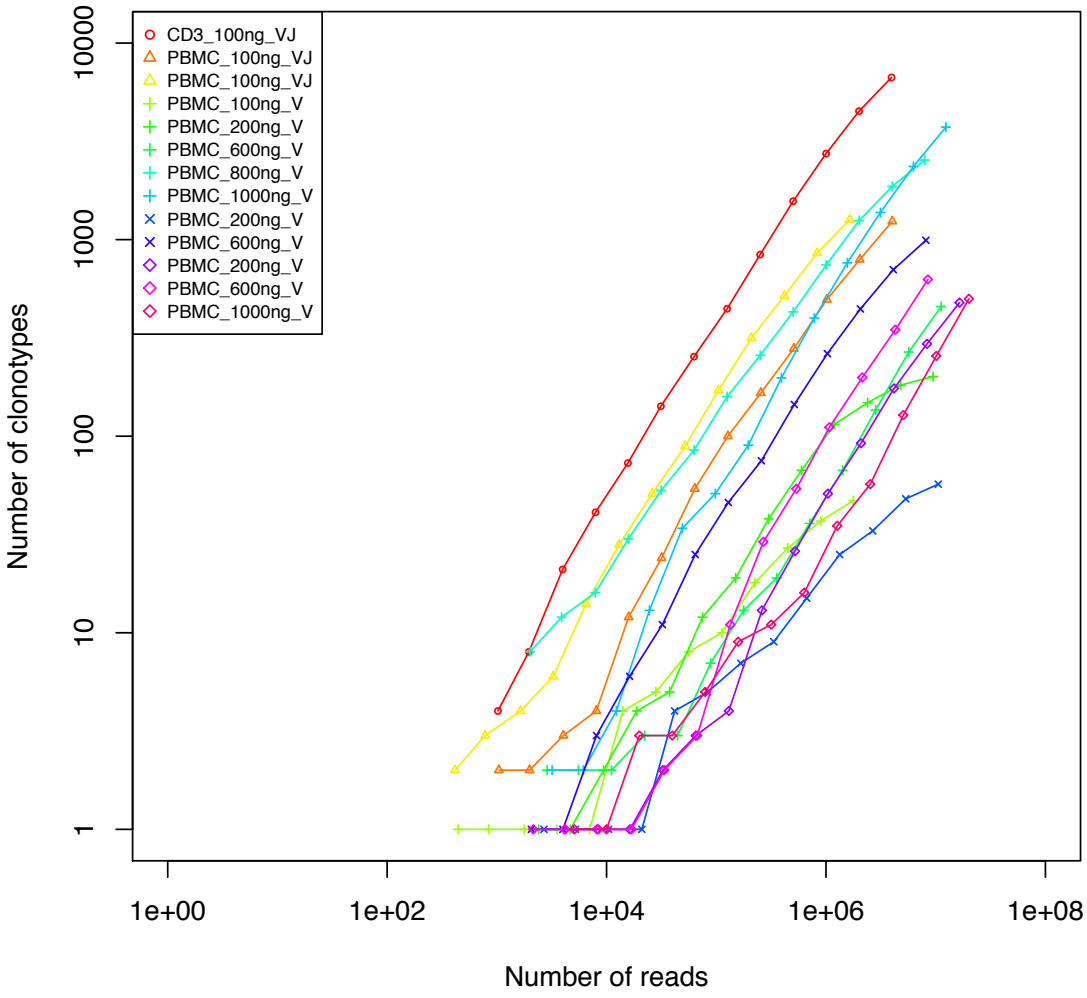
(C) A037 healthy reference sample: Unique gamma chain VJ combinatorial counts.



(D) A037 healthy reference sample: Unique delta chain VJ combinatorial counts.

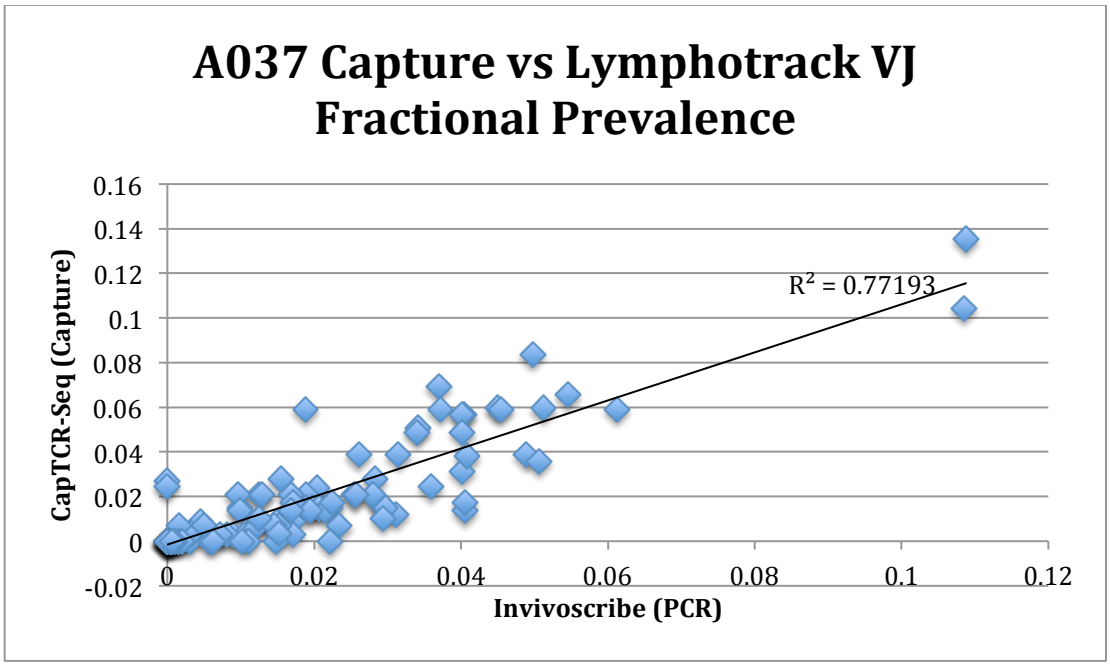


(E) Comparison of unique VJ fraction prevalence between A037 samples assessed by ImmunoSEQ and CapTCR-seq. Each point represents fraction of total observed rearrangements for each V or J allele.

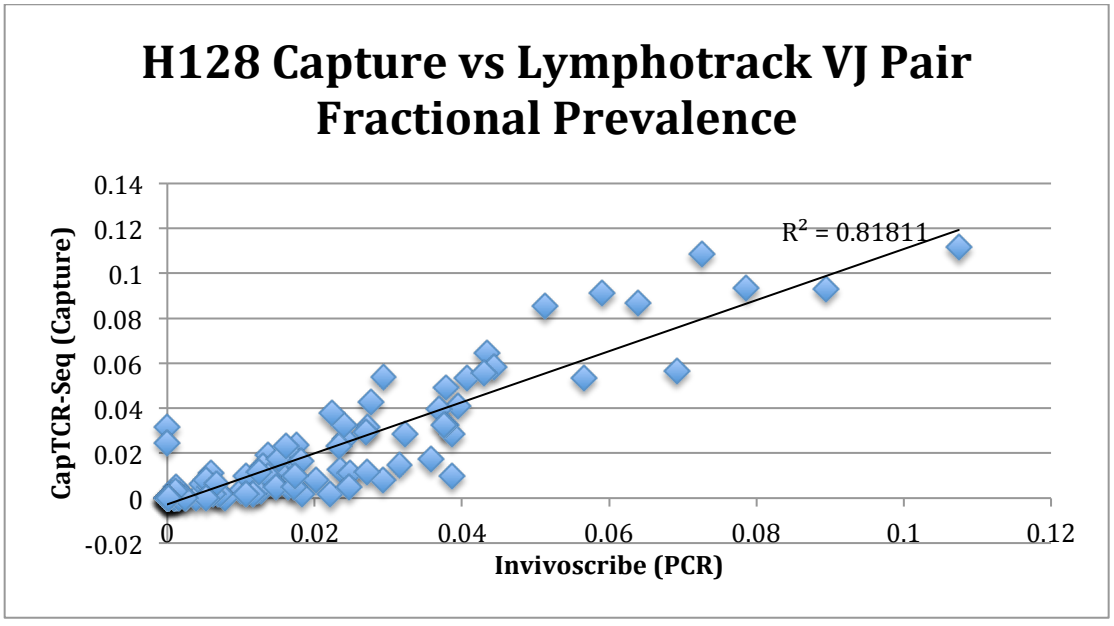


(F) Number of unique clonotypes identified with respect to number of reads from downsampled sequencing data sets from A037 CD3 and PBMC cell populations. From right to left, each point represents the number of unique clonotypes when reads were reduced by half. The capture panel consisting of either (V) probes or both V and J probes (VJ) is indicated in the legend along with amounts of genomic DNA used to generate the initial library subsequently used for CapTCR-seq.

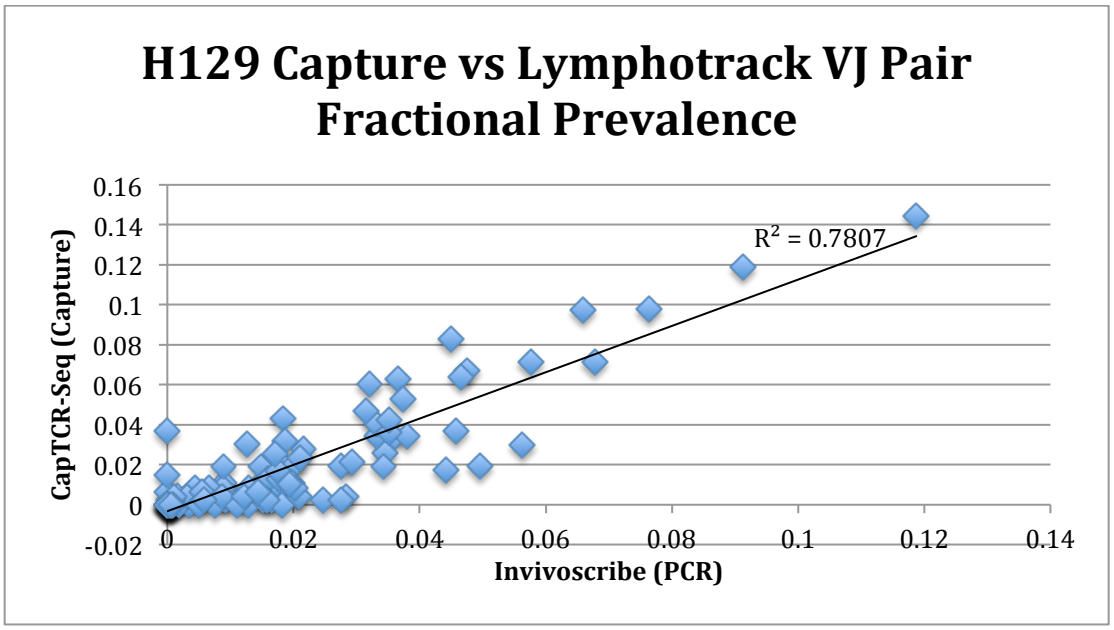
Supplemental Figure 2– Fractional prevalences of beta locus VJ gene rearrangements observed in TCR rearrangements by CapTCR-Seq and Lymphotrack (MiXCR). Comparison of unique VJ fraction prevalence between A037 samples assessed by CapTCR-seq and Lymphotrack (Invivoscribe PCR). Each point represents fraction of total observed rearrangements for each pair of TRB V and J alleles.



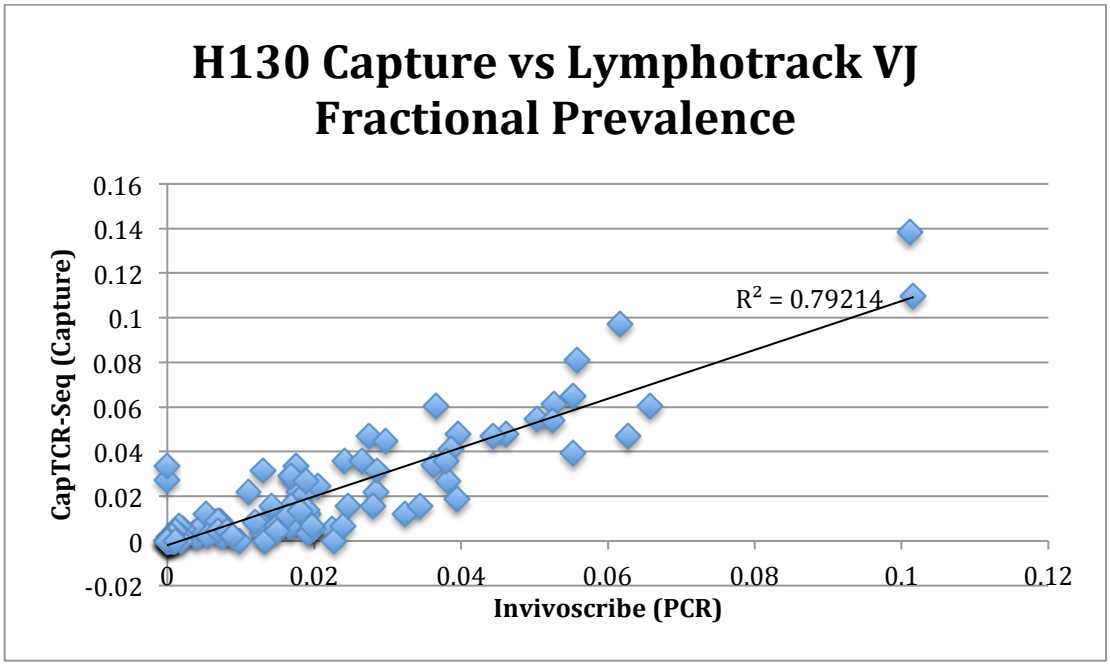
(A) Sample A037



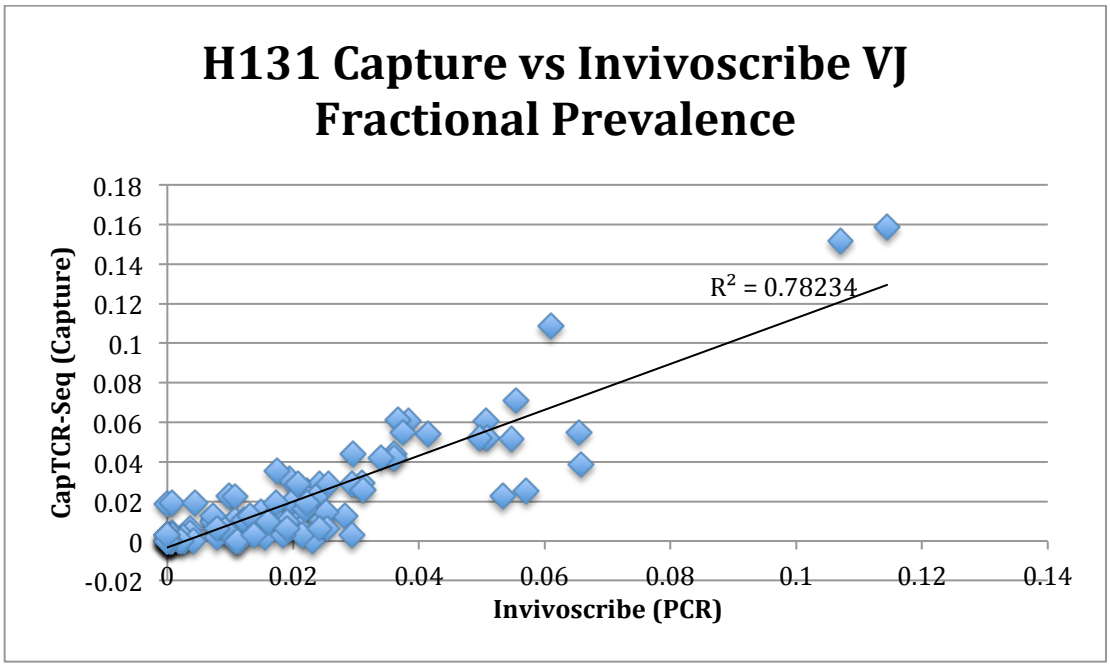
(B) Sample H128



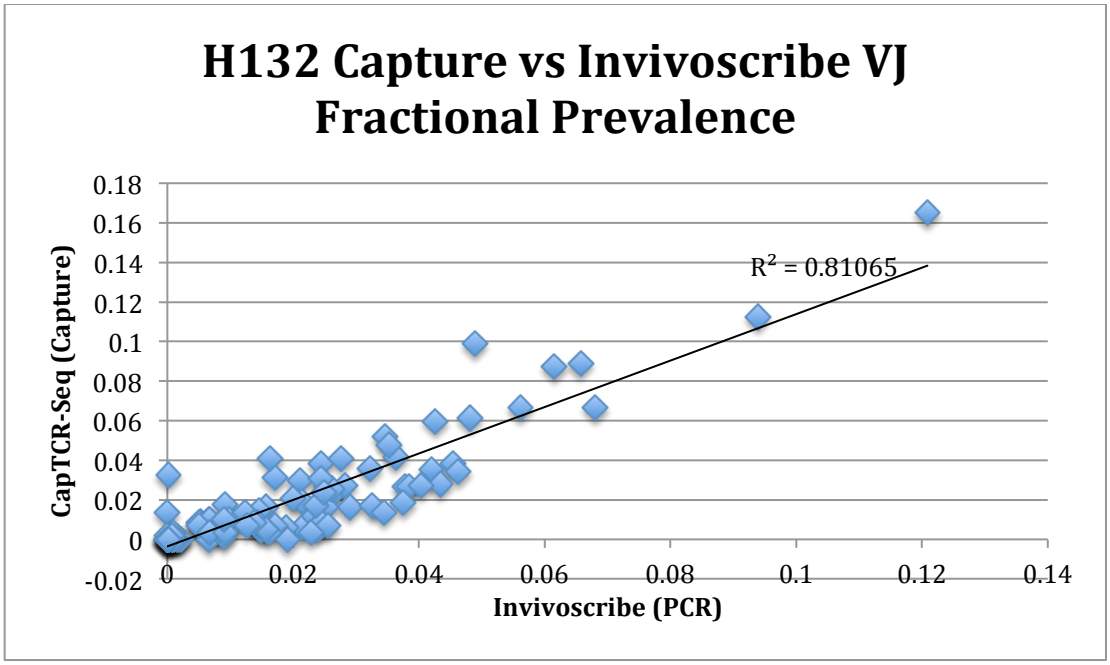
(C) Sample H129



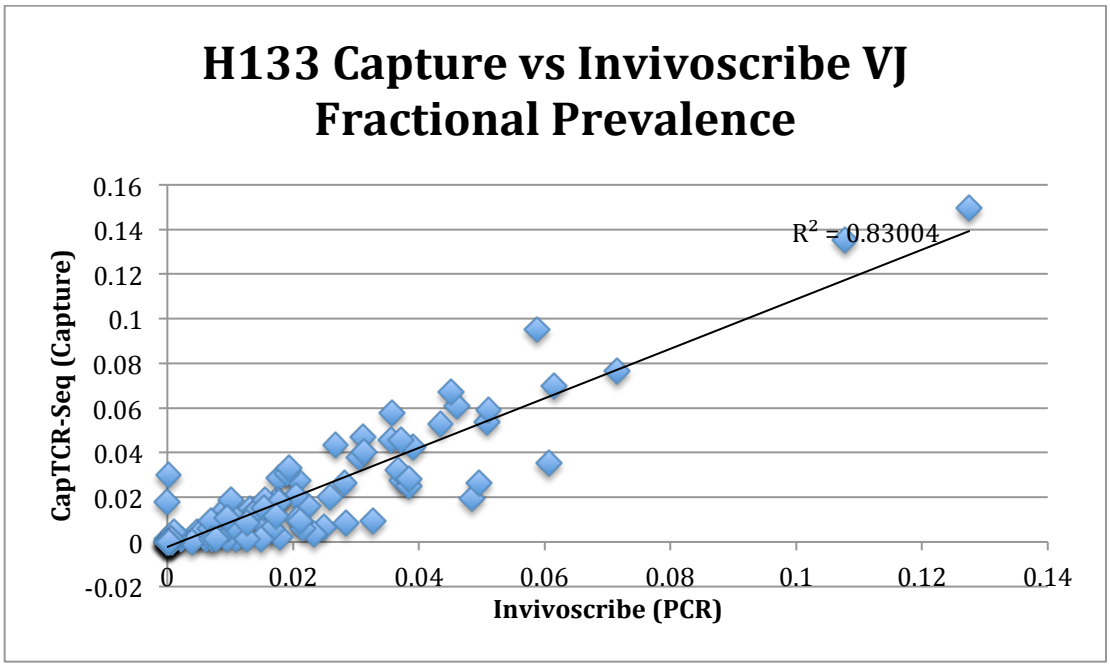
(D) Sample H130



(E) Sample H131

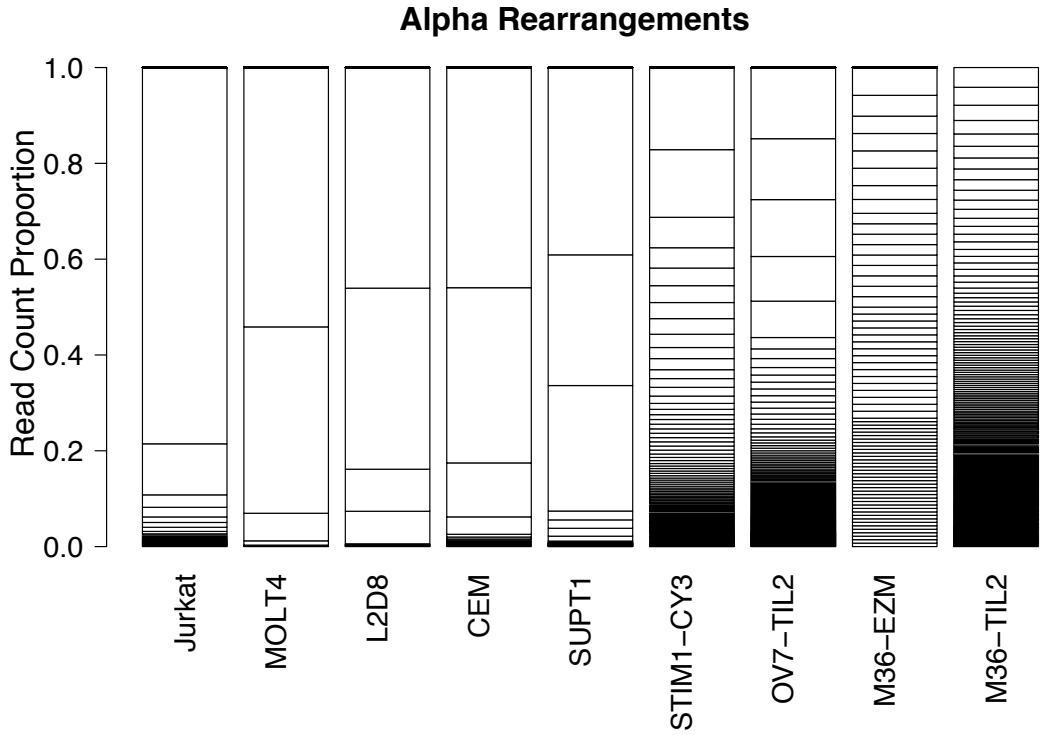


(F) Sample H132

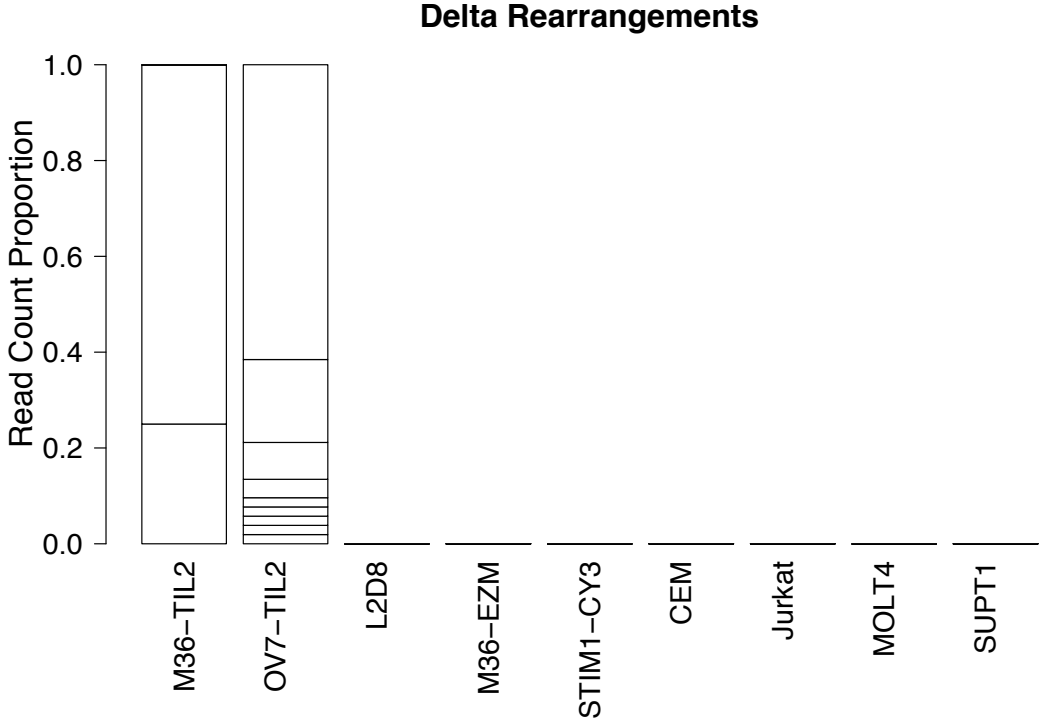


(G) Sample H133

Supplemental Figure 3. Cell line and tumor isolate T-cell clonality.

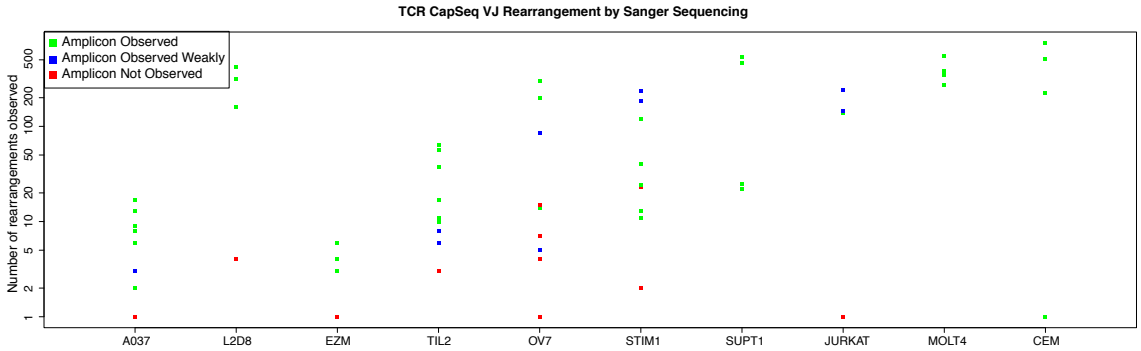


(A) Alpha chain VJ rearrangements. Boxes represent individual unique VJ pairs and box size reflects abundance in sample. Samples are ordered left to right in terms of decreasing clonality based on prevalence of top clone.



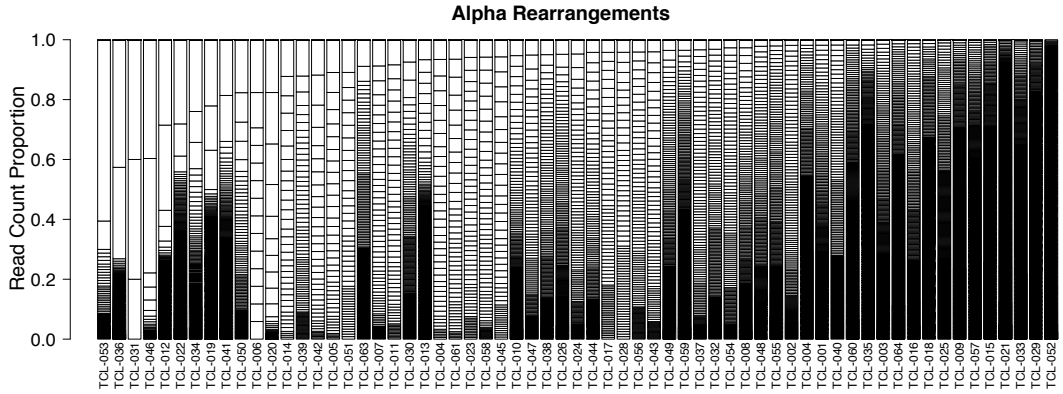
(B) Delta chain VJ rearrangements. Boxes represent individual unique VJ pairs and box size reflects abundance in sample. Delta rearrangements were not observed for all

samples. Samples are ordered left to right in terms of decreasing clonality based on prevalence of top clone.

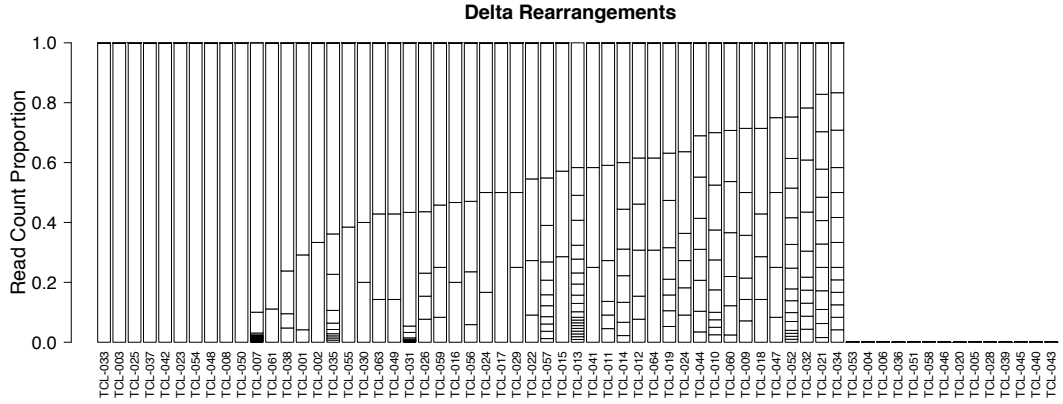


(C) Sanger sequencing validation of individual VJ rearrangements from hybrid-capture sample data with the number of times the given VJ rearrangement was observed plotted on the y-axis. VJ rearrangements that failed to generate a dominant band upon PCR amplification tended to be those with low observation counts.

Supplemental Figure 4. Clinical sample T-cell clonality.



(A) Alpha chain. Boxes represent individual VJ rearrangements and box size reflects abundance in sample. Samples are ordered left to right in terms of decreasing clonality based on prevalence of top clone.



(B) Delta chain. Boxes represent individual VJ rearrangements and box size reflects abundance in sample. Samples are ordered left to right in terms of decreasing clonality based on prevalence of top clone. Delta rearrangements were not observed for all samples.

Supplemental Tables

Table 1: Probe Sequences

Gene	120bp capture probe sequence
TRAV1-1*02	caggtcgtttttcttcattccttagtcgctctgatagttatggttacctccttctacaggagctccagatgaaagactctgcctcttacttctgcgctgt
TRAV1-2*02	catctgggttcaacgggctgttctggtaccagcaacatgctggcgaagcacccacatttctgtcttacaatgttctggatggtctggaggagaaaggtcg
TRAV12-1*02	acagcacacgtcaatagagccagccagtatatttccctgctcatcagagactccaagctcagtgattcagccacctacctctgtgtggtgaacattcgcc
TRAV12-2*02	gtttacagcacagctcaataaagccagccagtatgtttctctgctcatcagagactcccagcccagtgattcagccacctacctctgtgccgtgtaccac
TRAV12-2*03	aaggtttacagcacagctcaataaagccagccagtatgtttctctgctcatcagagactcccagcccagtgattcagccacctacctctgtgccgtgaac
TRAV12-3*02	aggtttacagcacaggtcgataaatccagcaagtatatctccttgttcatcagagactcacagcccagtgattcagccacctacctctgtgcaatgagcg
TRAV13-1*02	tgttacattgaacaagacagccaaacatttctccctgcacatcacagagacccaacctgaagactcggctgtctacttctgtgcagcaagtaggaaggac
TRAV13-1*03	gcttattatagacattcgttcaaatgtgggcgaaaagaaagaccaacgaattgctgttacattgaacaagacagccaaacatttctccctgcagatcaca
TRAV13-2*02	caaagagtcaccgttttattgaataagacagtgaaacatctctctctgcaaattgcagctactcaacctggagactcagctgtctacttttgtgcagaga
TRAV14/DV4*03	aggtcgctactcattgaatttccagaaggcaagaaaatccgccaaccttgtcatctccgcttcacaactgggggactcagcaatgtatttctgtgcaatg
TRAV14/DV4*04	gcaacagaaggtcgctactcattgaatttccagaaggcaagaaaatccgccaaccttgtcatctccgcttcacaactgggggactcagcaatgtacttct
TRAV2*02	gggacgatacaacatgacctatgaacggttctcttcatcgctgctcatcctccaggtgcgggaggcagatgctgctgtttactactgtgctgtggcctgg
TRAV20*02	aaaggagaaagaaaggctaaaagccacattaacaaagaaggaaagctttctgcacatcacagcccctaaacctgaagactcagccacttatctctgtgct
TRAV20*03	agaaaaggagaaagaaaggctaaaagccacattaacaaagaaggaaagctttctgcacatcacagcccctaaacctgaagactcagccacttatctctgt
TRAV20*04	aaaggagaaagaaaggctaaaagccacattaacaaagaaggaaagctttctgcacatcacagcccctaaacctgaagactcagccacttatctctgtgct
TRAV21*02	aagtggaagacttaatgcctcgctggataaatcatcaggacgtagtactttatacattgcagcttctcagcctggtgactcagccacctacctctgtgct
TRAV23/DV6*02	agattcacaatctccttcaataaaagtgccaagcagttctcattgcatatcatggattcccagcctggagactcagccacctacttctgtgcagcaagcg
TRAV23/DV6*03	agattcacaatctccttcaataaaagtgccaagcagttctcattgcatatcatggattcccagcctggagactcagccacctacttctgtgcagcaagca
TRAV23/DV6*04	gaaagaaggaagattcacaatctccttcaataaaagtgccaagcagttctcattgcatatcatggattcccagcctggagactcagccacctacttctgt
TRAV24*02	ggacgaataagtgccactcttaataccaaggagggttacagctatttgtacatcaaaggatcccagcctgaagattcagccacatacctctgtgccttta
TRAV26-1*02	ctctgatcatcacagaagacagaaagtccagcaccttgatcctgccccacgctacgctgagagacactgctgtgtactattgcatcgtcagagattgggt
TRAV26-1*03	caatgaaatggcctctctgatcatcacagaagacagaaagtccagcaccttgatcctgccccacgctacgctgagagacactgctgtgtactattgcatc
TRAV26-2*02	ccctcccagggtccagagtacgtgattcatggtcttacaagcaatgtgaacaacagaatggcctgtgtggcaatcgctgaagacagaaagtccagtacct
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TRAV27*03	gctgaagagactaacctttcagtttggtgatgcaagaaaggacagttctctccacatcactgcagcccagactggtgatacaggcctctacctctgtgca
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TRAV30*02	tcgtgaaaaaatatctgcttcatttaatgaaaaaaagcagcaaagctccctgtaccttacggcctcccagctcagttactcaggaacctacttctgcggg
TRAV30*03	tcatgaaaaaatatctgcttcatttaatgaaaaaaagcggcaaagctccctgtaccttacggcctcccagctcagttactcaggaacctacttctgcggc
TRAV30*04	tcctgatgatattactgaagggtggagaacagaagcgtcatgaaaaaatatctgcttcatttaatgaaaaaaagcagcaaagctccctgtaccttacggc
TRAV35*02	aaatggaagactgactgctcagtttggtataaccagaaaggacagcttcctgaatatctcagcatccatacctagtgatgtaggcatctacttctgtgct
TRAV36/DV7*02	ggaagactaagtagcatattagataagaaagaacttttcagcatcctgaacatcacagccacccagaccggagactcggccgtctacctctgtgctgtgg
TRAV36/DV7*03	gtcaggaagactaagtagcatattagataagaaagaacttttcagcatcctgaacatcacagccacccagaccggagactcggccgtctacctctgtgct
TRAV36/DV7*04	tcaggaagactaagtagcatattagataagaaagaacttttcagcatcctgaacatcacagccacccagaccggagactcggccgtctacctctgtgctg
TRAV38-1*02	gagaatcgtttctctgtgaacttccagaaagcagccaaatccttcagtctcaagatctcagactcacagctgggggacactgcgatgtatttctgtgctt
TRAV38-1*03	aatcgtttctctgtgaacttccagaaagcagccaaatccttcagtctcaagatctcagactcacagctgggggacactgcgatgtatttctgtgctttca

Gene	120bp capture probe sequence
TRAV38-1*04	ggagaatcgtttctctgtgaacttccagaaagcagccaaatccttcagtctcaagatctcagactcacagctgggggacactgcgatgtatttctgtgca
TRAV6*02	gaaagaaagactgaaggtcacctttgataccacccttaaacagagtttgtttcatatcacagcctcccagcctgcagactcagctacctacctctgtgct
TRAV6*03	gaaagaaagactgaaggtcacctttgataccacccttaaacagagtttgtttcatatcacagcctcccagcctgcagactcagctacctacctctgtgct
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TRAV8-4*02	gaatttaagaagagtgaaacctccttccacctgacaaaaccctcagcccatatgagcgacgcggctgagtacttctgtgctgtgagtgatctcgaaccga
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TRBV20-1*05	ggacaagtttctcatcaaccatgcaagcctgaccttgtccactctgacagtgaccagtgcccatcctgaagacagcagcttctacatctgcagtgctaga
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TRBV20/OR9-2*02	gaaggacaagtttcccatcaaccatccaaacctgaccttctccgctctgacagtgacctgtgcccatcctgaagacagcagcttctacatctgcagtgct

Gene	120bp capture probe sequence
TRBV23/OR9-2*02	gtttttgatttccttttcagaatgaacaagttcttcaagaaatggagatgcacaagaagcgattctcatctcaatgccccaagaacgcaccctgcagcctg
TRBV24/OR9-2*02	cagttgatctattgctccttttgatgtcaaaatatataaacaaaagagagatctctgatggatacagtgtctcttgacaggaacaggctaaattctccctg
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TRBV29-1*02	tgacaagtttcccatcagccgcccaaacctaacattctcaagtctgactgtgagcaacatgagccctgaagacagcagcatatatctctgcagcgttgaa
TRBV29-1*03	tgacaagtttcccatcagccgcccaaacctaacattctcaactctgactgtgagcaacatgagccctgaagacagcagcatatatctctgcagcgcgggc
TRBV3-1*02	tccaaatcgattctcacctaaatctccagacaaagctaaattaaatcttcacatcaattccctggagcttggtgactctgctgtgtatttctgtgccagc
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TRBV20-1*03	gaaggacaagtttctcatcaaccatgcaagcctgaccttgtccactctgacagtgaccagtgcccatcctgaagacagcagcttctacatctgcagtgct

Gene	120bp capture probe sequence
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TRGVB*01	cttgaggcaagaacaaattttcaaatgtctacttcagtctttaccataaacttcataggaaaggaagatgaggccatttactactgcactgcttaggacc

Gene	120bp capture probe sequence
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TRBV7-9*01	ggttctctgcagagaggcctaagggatctttctccaccttggagatccagcgcacagagcaggggactcggccatgtatctctgtgccagcagcttagc
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TRAV20*01	aaagaaaggctaaaagccacattaacaaagaaggaaagctttctgcacatcacagcccctaaacctgaagactcagccacttatctctgtgctgtgcagg
TRBV11-1*01	gattttctgcagagaggctcaaaggagtagactccactctcaagatccagcctgcagagcttggggactcggccatgtatctctgtgccagcagcttagc

Gene	120bp capture probe sequence
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TRGV5*01	gtattatactcatacacccaggaggtggagctggatattgatactacgaaatctaattgaaaatgattctggggtctattactgtgccacctgggacagg
TRGV8*01	gtatcatacttatgcaagcacagggaagagccttaaatttatactggaaaatctaattgaacgtgactctggggtctattactgtgccacctgggatagg
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Gene	120bp capture probe sequence
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TRAV8-5*01	tggacacttatcacttccccaatcaataccctgtgatttcctatgcctgtctttacttaatctcttaatcctgtcagctgaggaggatgtatgtcacc

Gene	120bp capture probe sequence
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TRBV26/OR9-2*02	ggtatcatgtttcttgaaatactatagcatcttttctcctgaccctgaagtctgctagcaccaaccagacatgtgtgtatctctgcgccagcagttcatc
TRBV7-3*03	ggttctttgcagtcaggcctgagggatccgtctctactctgaagatccagcgcacagagcaggggactcagccgcgtatctccgtgccagcagcttaac
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TRAJ32*01	ggctctgaaggactgtgtgaattatggcggtgctacaaacaagctcatctttggaactggcactctgcttgctgtccagccaagtacgtaagtagtggca
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Gene	120bp capture probe sequence
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TRAJ55*01	gaggatggatccctgttagtgacaagtgctggtaatgctcctgttggggaaaggggatgagtacaaaaataaatccaagtaagtgtggagggacaagaag
TRAJ56*01	agatcctcgtgtcattgtgttatactggagccaatagtaagctgacatttggaaaaggaataactctgagtgttagaccaggtatgttttaatgaatgtt
TRAJ57*01	aagcagtctgtgggggtgtaactcagggcggatctgaaaagctggtctttggaaagggaacgaaactgacagtaaacccatgtaagtctgaataatgctt
TRAJ58*01	aagcccctcagcacagtgtttaagaaaccagtggctctaggttgacctttggggaaggaacacagctcacagtgaatcctggtaagtggaggggagcatt
TRAJ59*01	atgtaaaggcagcagctcctgtgggaaggaaggaaacaggaaatttacatttggaatggggacgcaagtgagagtgaagctatctttaaaccaaaggtgt
TRAJ6*01	caggttttatcaaaggctgtcctcactgtgtgcatcaggaggaagctacatacctacatttggaagaggaaccagccttattgttcatccgtgtaagt
TRAJ60*01	gtaaagggcctgggcactatgtgaagatcacctagatgctcaactttgggaaggggactgagttaattgtgagcctgggtgagtacctcaactccagagg
TRAJ61*01	taaaggtgcccactcctgtgggtaccgggttaataggaaactgacatttggagccaacactagaggaatcatgaaactcagcaagtaatatttggcagaa
TRAJ7*01	tgtaatacacttacacagtgtgactatgggaacaacagactcgcttttgggaaggggaaccaagtggtggtcataccaagtaagtgagctgggatcctcc
TRAJ8*01	tacagagttatgtcagagtgtgaacacaggctttcagaaacttgtatttggaactggcacccgacttctggtcagtccaagtaagtcaaatctgcagaaa
TRAJ9*01	cgcagtgcaaatcactgtgggaaatactggaggcttcaaaactatctttggagcaggaacaagactatttgttaaagcaagtaagttccatgaaataacc
TRBJ1-1*01	ttttcaccttgacccctgtcactgtgtgaacactgaagctttctttggacaaggcaccagactcacagttgtaggtaagacatttttcaggttcttttgc
TRBJ1-2*01	ttttagagtggctatattcttatgtgctaactatggctacaccttcggttcggggaccaggttaaccgttgtaggtaaggctgggggtctctaggagggg
TRBJ1-3*01	tttgaagtggccctgggaggctgtgctctggaaacaccatatattttggagagggaagttggctcactgttgtaggtgagtaagtcaaggctggacagct
TRBJ1-4*01	ttccttccagtctttaatgttgtgcaactaatgaaaaactgtttttggcagtggaacccagctctctgtcttgggtatgtaaaagacttctttcgggat
TRBJ1-5*01	tttgccacactcatgatgcactgtgtagcaatcagccccagcattttggtgatgggactcgactctccatcctaggtaagttggcagaatcagggtggta

Gene	120bp capture probe sequence
TRBJ1-6*01	ttatctaagcctctgcagctgtgctcctataattcacccctccactttgggaatgggaccaggctcactgtgacaggtatgggggctccactcttgactc
TRBJ1-6*02	ttatctaagcctctgcagctgtgctcctataattcacccctccactttgggaacgggaccaggctcactgtgacaggtatgggggctccactcttgactc
TRBJ2-1*01	ttctgggcagccccttcccactgtgctcctacaatgagcagttcttcgggccagggacacggctcaccgtgctaggtaagaaggggctccaggtgggag
TRBJ2-2*01	tgcgccagggtccccagggctgtgcgaacaccggggagctgtttttggagaaggctctaggctgaccgtactgggtaaggaggcggctggggctccgga
TRBJ2-2P*01	agctgccccactctgagaggggctgtgctgagaggcgctgctgggcgtctgggcggaggactcctggttctgggtgctgggagagcgatggggctctcag
TRBJ2-3*01	ttttgtcctgggcctccaggctgtgagcacagatacgcagtattttggcccaggcacccggctgacagtgctcggtaagcgggggctcccgctgaagccc
TRBJ2-4*01	ttctgtgccgcgtctcggggctgtgagccaaaaacattcagtacttcggcgccgggacccggctctcagtgctgggtaagctggggccgccgggggaccg
TRBJ2-5*01	tttttgtgcggggctcgggggccgtgaccaagagacccagtacttcgggccaggcacgcggctcctggtgctcggtgagcgcgggctgctggggcgcggg
TRBJ2-6*01	ttgcggggagtccccgggctgtgctctggggccaacgtcctgactttcggggccggcagcaggctgaccgtgctgggtgagttttcgcgggaccacccgg
TRBJ2-7*01	tttgcatgcgggggtgcacctccgtgctcctacgagcagtacttcgggccgggcaccaggctcacggtcacaggtgagattcgggcgtctccccaccttc
TRBJ2-7*02	tttgcatgcggggatgcacctccgtgctcctacgagcagtacgtcgggccgggcaccaggctcacggtcacaggtgagattcgggcgtctccccaccttc
TRDJ1*01	ttttggaacgtcctcaagtgctgtgacaccgataaactcatctttggaaaaggaacccgtgtgactgtggaaccaagtaagtaactcattatttatctga
TRDJ2*01	tttttcgtaatgacgcctgtggtagtgctttgacagcacaactcttctttggaaagggaacacaactcatcgtggaaccaggtaagttatgcattttact
TRDJ3*01	tgaggcactgtcataatgtgctcctgggacacccgacagatgtttttcggaactggcatcaaactcttcgtggagccccgtgagttgatctttttcctat
TRDJ4*01	atgagacatacaaaaaggtaatgccgccccagacccctgatctttggcaaaggaacctatctggaggtacaacaac
TRGJ1*01	ttttgatatggactgaatcactgtggaattattataagaaactctttggcagtggaacaacactggttgtcacaggtaagtatcggaagaatacaacatt
TRGJ1*02	tactgtgccttgtgggaggtgcttattataagaaactctttggcagtggaacaacacttgttgtcacaggt
TRGJ2*01	ttttgatatggactgaatcactgtggaattattataagaaactctttggcagtggaacaacacttgttgtcacaggtaagtatcggaagaatacaacatt
TRGJP*01	ataaaggcttctcaggtggtgggcaagagttgggcaaaaaaatcaaggtatttggtcccggaacaaagcttatcattacaggtaagttttctttaaattt
TRGJP1*01	gatttttctagaagcttagaccggtgtgataccactggttggttcaagatatttgctgaagggactaagctcatagtaacttcacctggtaagt
TRGJP2*01	gatttttgtagaagcttagaccagtgtgatagtagtgattggatcaagacgtttgcaaaagggactaggctcatagtaacttcgcctggtaagt

Table 2: Sanger Sequencing Results

Primer Combination	Expected PCR Product Size When Present (bp) ¥	A037					L2D8				
		PCR & Electrophoresis Result ǂ	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads	PCR & Electrophoresis Result ǂ	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads
TRAV1-1 & TRAJ12	275	Negative	0	877	1155401	1370124	Weak	0	1384	985843	1182258
TRAV1-1 & TRAJ33	282	Weak	0	877	1155401	1370124	Weak	0	1384	985843	1182258
TRAV1-1 & TRAJ49	278	Weak	0	877	1155401	1370124	Weak	0	1384	985843	1182258
TRAV12-2 & TRAJ45	285	Weak	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRAV17 & TRAJ52	103	Negative	1	877	1155401	1370124	Positive	425	1384	985843	1182258
TRAV27 & TRAJ17	326	Negative	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRAV27 & TRAJ40	327	Weak	0	877	1155401	1370124	Weak	0	1384	985843	1182258
TRAV29/DV5 & TRAJ26	327	Negative	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRAV29/DV5 & TRAJ4	315	Weak	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRAV35 & TRAJ48	333	Negative	0	877	1155401	1370124	Positive	316	1384	985843	1182258
TRAV8-3 & TRAJ42	333	Negative	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV10-3 & TRBJ2-5	296	Negative	0	877	1155401	1370124	Weak	0	1384	985843	1182258
TRBV12-3 & TRBJ1-2	103	Weak	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV18 & TRBJ2-2	264	Negative	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV20-1 & TRBJ2-1	349	Positive	6	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV5-7 & TRBJ2-2	133	Weak	0	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV7-8 & TRBJ1-6	257	Negative	0	877	1155401	1370124	Positive	315	1384	985843	1182258
TRBV7-8 & TRBJ2-5	240	Weak	2	877	1155401	1370124	Negative	0	1384	985843	1182258
TRBV9 & TRBJ2-1	336	Positive	2	877	1155401	1370124	Weak	0	1384	985843	1182258
TRGV11 & TRGJ1	297	Negative	8	877	1155401	1370124	Negative	0	1384	985843	1182258
TRGV2 & TRGJP2	325	Positive	13	877	1155401	1370124	Negative	0	1384	985843	1182258
TRGV3 & TRGJ1	241	Weak	3	877	1155401	1370124	Positive	0	1384	985843	1182258
TRGV4 & TRGJ1	254	Positive	17	877	1155401	1370124	Positive	161	1384	985843	1182258
TRGV8 & TRGJ1	263	Positive	8	877	1155401	1370124	Negative	4	1384	985843	1182258
TRGV8 & TRGJP1	266	Positive	2	877	1155401	1370124	Negative	0	1384	985843	1182258
TRGV9 & TRGJ1	182	Positive	9	877	1155401	1370124	Negative	0	1384	985843	1182258

Primer Combination	Expected PCR Product Size When Present (bp) ¥	EZM					TIL2				
		PCR & Electrophoresis Result ‡	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads	PCR & Electrophoresis Result ‡	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads
TRAV1-1 & TRAJ12	275	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRAV1-1 & TRAJ33	282	Negative	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRAV1-1 & TRAJ49	278	Negative	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRAV12-2 & TRAJ45	285	Negative	1	115	1377194	1595646	Weak	0	2095	926207	1145281
TRAV17 & TRAJ52	103	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRAV27 & TRAJ17	326	Negative	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRAV27 & TRAJ40	327	Weak	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRAV29/DV5 & TRAJ26	327	Negative	0	115	1377194	1595646	Positive	37	2095	926207	1145281
TRAV29/DV5 & TRAJ4	315	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRAV35 & TRAJ48	333	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRAV8-3 & TRAJ42	333	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRBV10-3 & TRBJ2-5	296	Negative	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRBV12-3 & TRBJ1-2	103	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRBV18 & TRBJ2-2	264	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRBV20-1 & TRBJ2-1	349	Negative	0	115	1377194	1595646	Weak	8	2095	926207	1145281
TRBV5-7 & TRBJ2-2	133	Weak	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRBV7-8 & TRBJ1-6	257	Negative	0	115	1377194	1595646	Negative	0	2095	926207	1145281
TRBV7-8 & TRBJ2-5	240	Negative	0	115	1377194	1595646	Weak	0	2095	926207	1145281
TRBV9 & TRBJ2-1	336	Weak	0	115	1377194	1595646	Weak	6	2095	926207	1145281
TRGV11 & TRGJ1	297	Negative	0	115	1377194	1595646	Negative	3	2095	926207	1145281
TRGV2 & TRGJP2	325	Positive	6	115	1377194	1595646	Positive	10	2095	926207	1145281
TRGV3 & TRGJ1	241	Positive	0	115	1377194	1595646	Positive	17	2095	926207	1145281
TRGV4 & TRGJ1	254	Positive	3	115	1377194	1595646	Positive	56	2095	926207	1145281
TRGV8 & TRGJ1	263	Positive	4	115	1377194	1595646	Positive	63	2095	926207	1145281
TRGV8 & TRGJP1	266	Weak	0	115	1377194	1595646	Positive	0	2095	926207	1145281
TRGV9 & TRGJ1	182	Weak	0	115	1377194	1595646	Positive	11	2095	926207	1145281

Primer Combination	Expected PCR Product Size When Present (bp) ⁋	OV7					STIM1				
		PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads	PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads
TRAV1-1 & TRAJ12	275	Negative	4	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV1-1 & TRAJ33	282	Weak	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV1-1 & TRAJ49	278	Weak	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV12-2 & TRAJ45	285	Negative	0	2074	1379128	1675034	Weak	238	2796	1066413	1315476
TRAV17 & TRAJ52	103	Weak	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV27 & TRAJ17	326	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV27 & TRAJ40	327	Negative	0	2074	1379128	1675034	Weak	0	2796	1066413	1315476
TRAV29/DV5 & TRAJ26	327	Positive	298	2074	1379128	1675034	Negative	2	2796	1066413	1315476
TRAV29/DV5 & TRAJ4	315	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV35 & TRAJ48	333	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRAV8-3 & TRAJ42	333	Negative	0	2074	1379128	1675034	Weak	185	2796	1066413	1315476
TRBV10-3 & TRBJ2-5	296	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV12-3 & TRBJ1-2	103	Weak	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV18 & TRBJ2-2	264	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV20-1 & TRBJ2-1	349	Negative	1	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV5-7 & TRBJ2-2	133	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV7-8 & TRBJ1-6	257	Negative	0	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV7-8 & TRBJ2-5	240	Weak	85	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRBV9 & TRBJ2-1	336	Positive	0	2074	1379128	1675034	Weak	0	2796	1066413	1315476
TRGV11 & TRGJ1	297	Negative	0	2074	1379128	1675034	Negative	23	2796	1066413	1315476
TRGV2 & TRGJP2	325	Weak	0	2074	1379128	1675034	Positive	11	2796	1066413	1315476
TRGV3 & TRGJ1	241	Negative	7	2074	1379128	1675034	Positive	13	2796	1066413	1315476
TRGV4 & TRGJ1	254	Weak	5	2074	1379128	1675034	Positive	40	2796	1066413	1315476
TRGV8 & TRGJ1	263	Positive	14	2074	1379128	1675034	Positive	24	2796	1066413	1315476
TRGV8 & TRGJP1	266	Positive	197	2074	1379128	1675034	Negative	0	2796	1066413	1315476
TRGV9 & TRGJ1	182	Negative	15	2074	1379128	1675034	Positive	120	2796	1066413	1315476

Primer Combination	Expected PCR Product Size When Present (bp) ǂ	SE14-2005 (SUPT1)					SE14-2033 (Jurkat)				
		PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads	PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads
TRAV1-1 & TRAJ12	275	Positive	460	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV1-1 & TRAJ33	282	Negative	0	2371	837044	1096080	Weak	0	1554	817921	995632
TRAV1-1 & TRAJ49	278	Weak	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV12-2 & TRAJ45	285	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV17 & TRAJ52	103	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV27 & TRAJ17	326	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV27 & TRAJ40	327	Weak	0	2371	837044	1096080	Weak	0	1554	817921	995632
TRAV29/DV5 & TRAJ26	327	Weak	0	2371	837044	1096080	Weak	0	1554	817921	995632
TRAV29/DV5 & TRAJ4	315	Weak	0	2371	837044	1096080	Negative	1	1554	817921	995632
TRAV35 & TRAJ48	333	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRAV8-3 & TRAJ42	333	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV10-3 & TRBJ2-5	296	Negative	0	2371	837044	1096080	Weak	0	1554	817921	995632
TRBV12-3 & TRBJ1-2	103	Weak	0	2371	837044	1096080	Positive	138	1554	817921	995632
TRBV18 & TRBJ2-2	264	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV20-1 & TRBJ2-1	349	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV5-7 & TRBJ2-2	133	Weak	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV7-8 & TRBJ1-6	257	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV7-8 & TRBJ2-5	240	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRBV9 & TRBJ2-1	336	Positive	538	2371	837044	1096080	Negative	0	1554	817921	995632
TRGV11 & TRGJ1	297	Negative	0	2371	837044	1096080	Weak	242	1554	817921	995632
TRGV2 & TRGJP2	325	Weak	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRGV3 & TRGJ1	241	Positive	22	2371	837044	1096080	Negative	0	1554	817921	995632
TRGV4 & TRGJ1	254	Positive	25	2371	837044	1096080	Negative	0	1554	817921	995632
TRGV8 & TRGJ1	263	Negative	0	2371	837044	1096080	Weak	146	1554	817921	995632
TRGV8 & TRGJP1	266	Negative	0	2371	837044	1096080	Negative	0	1554	817921	995632
TRGV9 & TRGJ1	182	Weak	0	2371	837044	1096080	Negative	0	1554	817921	995632

Primer Combination	Expected PCR Product Size When Present (bp) ¥	SE14-2034 (MOLT4)					SE14-2035 (CEM)				
		PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads	PCR & Electrophoresis Result †	Reads with Detected Primer Combination	Total Number of Rearranged Reads Detected	Reads on Target	Total Number of Input Reads
TRAV1-1 & TRAJ12	275	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV1-1 & TRAJ33	282	Positive	347	1723	741549	906513	Weak	0	1744	981779	1289677
TRAV1-1 & TRAJ49	278	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV12-2 & TRAJ45	285	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV17 & TRAJ52	103	Negative	0	1723	741549	906513	Positive	0	1744	981779	1289677
TRAV27 & TRAJ17	326	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV27 & TRAJ40	327	Negative	0	1723	741549	906513	Positive	506	1744	981779	1289677
TRAV29/DV5 & TRAJ26	327	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV29/DV5 & TRAJ4	315	Negative	0	1723	741549	906513	Positive	751	1744	981779	1289677
TRAV35 & TRAJ48	333	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRAV8-3 & TRAJ42	333	Negative	0	1723	741549	906513	Weak	0	1744	981779	1289677
TRBV10-3 & TRBJ2-5	296	Positive	379	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV12-3 & TRBJ1-2	103	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV18 & TRBJ2-2	264	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV20-1 & TRBJ2-1	349	Positive	551	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV5-7 & TRBJ2-2	133	Negative	0	1723	741549	906513	Weak	0	1744	981779	1289677
TRBV7-8 & TRBJ1-6	257	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV7-8 & TRBJ2-5	240	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRBV9 & TRBJ2-1	336	Negative	0	1723	741549	906513	Positive	1	1744	981779	1289677
TRGV11 & TRGJ1	297	Negative	0	1723	741549	906513	Weak	0	1744	981779	1289677
TRGV2 & TRGJP2	325	Positive	275	1723	741549	906513	Weak	0	1744	981779	1289677
TRGV3 & TRGJ1	241	Negative	0	1723	741549	906513	Positive	222	1744	981779	1289677
TRGV4 & TRGJ1	254	Negative	0	1723	741549	906513	Positive	0	1744	981779	1289677
TRGV8 & TRGJ1	263	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRGV8 & TRGJP1	266	Negative	0	1723	741549	906513	Negative	0	1744	981779	1289677
TRGV9 & TRGJ1	182	Negative	0	1723	741549	906513	Weak	0	1744	981779	1289677

Cell colors correspond to band intensity (green: positive, yellow: weak, red: negative) and number of corresponding VJ counts for a given sample (orange: 0, light yellow: >0).

Table 3: PCR Validation Primer Sequences

Gene	Primer Sequence
TRAJ12	ggtcccactcccgaagatca
TRAJ17	actagcaccctggttcctcc
TRAJ26	agggcagcacggacaatctg
TRAJ33	taattagcttggtcccagcgcc
TRAJ4	gcctggtccctgctccaaaa
TRAJ40	aaaaccttcagcctggtgcc
TRAJ42	ttggtttaacagagagtttagtgcc
TRAJ45	ttgccaaaggtgagtccgtc
TRAJ48	tgggtatgatggtgagtcttgt
TRAJ49	tcaaacttgtccctgtcccaa
TRAJ52	ggacagtcaagatggtcccttgtc
TRAV1-1	aggagccattgtccagataaa
TRAV12-2	cagtgttccagagggagccattg
TRAV17	cgggcagcagacactgcttctt
TRAV27	cagctgctggagcagagcc
TRAV29/DV5	agcaaaattcaccatccctgagcg
TRAV35	cagctgaatcagagtcctcaatct
TRAV8-3	gcctgacatccacatcactg
TRBJ1-2	tccccgaaccgaaggtgtag
TRBJ1-6	cctggtcccattcccaaagt
TRBJ2-1	acggtgagccgtgtccc
TRBJ2-2	tacggtcagcctagagcctt
TRBJ2-5	cccgaagtactgggtctctt
TRBV10-3	acacaaggtcacagagacagg
TRBV12-3	gaagatccagccctcagaacc
TRBV18	tcatgtttactggtatcggcag
TRBV20-1	tgtcgtctctcaacatccgagc
TRBV5-7	agctctgagctgaatgtgaacgcc
TRBV7-8	atccctttttggtaccaacag
TRBV9	cacacaaaccccaaagcacct
TRGJ1 *	ccagtgttgttccactgcc
TRGJ2 *	caagtgttgttccactgcca
TRGJP1	gagcttagtcccttcagc
TRGJP2	ggcgaagttactatgagcct
TRGV11	tgcccacatatcttggaaggc
TRGV2	atcaggcagactgggtcatc
TRGV3	actggtacctacaccaggagg
TRGV4	accggctacatccactggta
TRGV8	gtagaaaatgccgtctacac
TRGV9	cggcactgtcagaaaggaatc

Table 4.1: Capture Sample Method Data

Sample	Sample	Protocol Type	Library Input (ng)
A037 healthy reference			
Sample_A037_PBMC_TCR_A_all	A037_PBMC	CapSeq_One-Step_V	100
Sample_A037_PBMC_TCR_B_all	A037_PBMC	CapSeq_One-Step_V	200
Sample_A037_PBMC_TCR_D_all	A037_PBMC	CapSeq_One-Step_V	600
Sample_A037_PBMC_TCR_E_all	A037_PBMC	CapSeq_One-Step_V	800
Sample_A037_PBMC_TCR_F_all	A037_PBMC	CapSeq_One-Step_V	1000
Sample_A037_PBMC_TCR_G_all	A037_PBMC	CapSeq_One-Step_V	200
Sample_A037_PBMC_TCR_H_all	A037_PBMC	CapSeq_One-Step_V	600
Sample_A037_PBMC_TCR_J_all	A037_PBMC	CapSeq_One-Step_V	200
Sample_A037_PBMC_TCR_K_all	A037_PBMC	CapSeq_One-Step_V	600
Sample_A037_PBMC_TCR_L_all	A037_PBMC	CapSeq_One-Step_V	1000
Sample_16_01_A037_PBMC_TCR_F_all	A037_PBMC	CapSeq_One-Step_V	500
Sample_16_01_A037_PBMC_TCR_H_all	A037_PBMC	CapSeq_One-Step_V	250
Sample_A037_S1_all	A037_PBMC	CapSeq_One-Step_VJ	100
Sample_A037_PBMC_1S_all	A037_PBMC	CapSeq_One-Step_VJ	100
Sample_16_11_A037_PBMC_TCR_VJ_all	A037_PBMC	CapSeq_One-Step_VJ	100
Sample_A037_CD3_1S_all	A037_CD3	CapSeq_One-Step_VJ	100
Cell lines and flow sorted			
M36_EZM	flow_sorted	CapSeq_One-Step_VJ	100
M36_TIL2	flow_sorted	CapSeq_One-Step_VJ	100
OV7-TIL2	flow_sorted	CapSeq_One-Step_VJ	100
CEM	cell_line	CapSeq_One-Step_VJ	100
Jurkat	cell_line	CapSeq_One-Step_VJ	100
MOLT4	cell_line	CapSeq_One-Step_VJ	100
SUPT1	cell_line	CapSeq_One-Step_VJ	100
STIM1	flow_sorted	CapSeq_One-Step_VJ	100
L2D8	flow_sorted	CapSeq_One-Step_VJ	100
Patient samples			
TCL-001	patient_tumor	CapSeq_One-Step_VJ	100
TCL-002	patient_tumor	CapSeq_One-Step_VJ	100
TCL-003	patient_tumor	CapSeq_One-Step_VJ	100
TCL-004	patient_tumor	CapSeq_One-Step_VJ	100
TCL-005	patient_tumor	CapSeq_One-Step_VJ	100
TCL-006	patient_tumor	CapSeq_One-Step_VJ	100
TCL-007	patient_tumor	CapSeq_One-Step_VJ	100
TCL-008	patient_tumor	CapSeq_One-Step_VJ	100
TCL-009	patient_tumor	CapSeq_One-Step_VJ	100
TCL-010	patient_tumor	CapSeq_One-Step_VJ	100
TCL-011	patient_tumor	CapSeq_One-Step_VJ	100
TCL-012	patient_tumor	CapSeq_One-Step_VJ	100
TCL-013	patient_tumor	CapSeq_One-Step_VJ	100
TCL-014	patient_tumor	CapSeq_One-Step_VJ	100
TCL-015	patient_tumor	CapSeq_One-Step_VJ	100
TCL-016	patient_tumor	CapSeq_One-Step_VJ	100
TCL-017	patient_tumor	CapSeq_One-Step_VJ	100
TCL-018	patient_tumor	CapSeq_One-Step_VJ	100
TCL-019	patient_tumor	CapSeq_One-Step_VJ	100
TCL-020	patient_tumor	CapSeq_One-Step_VJ	100
TCL-021	patient_tumor	CapSeq_One-Step_VJ	100
TCL-022	patient_tumor	CapSeq_One-Step_VJ	100
TCL-023	patient_tumor	CapSeq_One-Step_VJ	100
TCL-024	patient_tumor	CapSeq_One-Step_VJ	100
TCL-025	patient_tumor	CapSeq_One-Step_VJ	100
TCL-026	patient_tumor	CapSeq_One-Step_VJ	100
TCL-027	patient_tumor	CapSeq_One-Step_VJ	100
TCL-028	patient_tumor	CapSeq_One-Step_VJ	100
TCL-029	patient_tumor	CapSeq_One-Step_VJ	100
TCL-030	patient_tumor	CapSeq_One-Step_VJ	100
TCL-031	patient_tumor	CapSeq_One-Step_VJ	100
TCL-032	patient_tumor	CapSeq_One-Step_VJ	100
TCL-033	patient_tumor	CapSeq_One-Step_VJ	100
TCL-034	patient_tumor	CapSeq_One-Step_VJ	100
TCL-035	patient_tumor	CapSeq_One-Step_VJ	100
TCL-036	patient_tumor	CapSeq_One-Step_VJ	100
TCL-037	patient_tumor	CapSeq_One-Step_VJ	100
TCL-038	patient_tumor	CapSeq_One-Step_VJ	100
TCL-039	patient_tumor	CapSeq_One-Step_VJ	100
TCL-040	patient_tumor	CapSeq_One-Step_VJ	100
TCL-041	patient_tumor	CapSeq_One-Step_VJ	100
TCL-042	patient_tumor	CapSeq_One-Step_VJ	100
TCL-043	patient_tumor	CapSeq_One-Step_VJ	100
TCL-044	patient_tumor	CapSeq_One-Step_VJ	100
TCL-045	patient_tumor	CapSeq_One-Step_VJ	100
TCL-046	patient_tumor	CapSeq_One-Step_VJ	100
TCL-047	patient_tumor	CapSeq_One-Step_VJ	100
TCL-048	patient_tumor	CapSeq_One-Step_VJ	100
TCL-049	patient_tumor	CapSeq_One-Step_VJ	100
TCL-050	patient_tumor	CapSeq_One-Step_VJ	100
TCL-051	patient_tumor	CapSeq_One-Step_VJ	100
TCL-052	patient_tumor	CapSeq_One-Step_VJ	100
TCL-053	patient_tumor	CapSeq_One-Step_VJ	100
TCL-054	patient_tumor	CapSeq_One-Step_VJ	100
TCL-055	patient_tumor	CapSeq_One-Step_VJ	100

TCL-056	patient_tumor	CapSeq_One-Step_VJ	100
TCL-057	patient_tumor	CapSeq_One-Step_VJ	100
TCL-058	patient_tumor	CapSeq_One-Step_VJ	100
TCL-059	patient_tumor	CapSeq_One-Step_VJ	100
TCL-060	patient_tumor	CapSeq_One-Step_VJ	100
TCL-061	patient_tumor	CapSeq_One-Step_VJ	100
TCL-062	patient_tumor	CapSeq_One-Step_VJ	100
TCL-063	patient_tumor	CapSeq_One-Step_VJ	100
TCL-064	patient_tumor	CapSeq_One-Step_VJ	100

Table 4.2: Capture Sample Read Counts

Sample	total reads	on-target reads	off-target reads	on-target ratio	merged reads	reads after threshold
A037 healthy reference						
Sample_A037_PBMC_TCR_A_all	1961529	96884	1864620	0.049392081	1961504	1900159
Sample_A037_PBMC_TCR_B_all	9915634	865444	9050165	0.087280753	9915609	9488814
Sample_A037_PBMC_TCR_D_all	11554469	359807	11194637	0.031140072	11554444	10839947
Sample_A037_PBMC_TCR_E_all	8208382	4019972	4188385	0.489739878	8208357	8069762
Sample_A037_PBMC_TCR_F_all	13434420	3925996	9508399	0.292234127	13434395	13076224
Sample_A037_PBMC_TCR_G_all	11585206	217323	11367858	0.018758665	11585181	11162632
Sample_A037_PBMC_TCR_H_all	8680363	1631345	7048993	0.187935113	8680338	8302862
Sample_A037_PBMC_TCR_J_all	17147171	504177	16642969	0.029402926	17147146	14908072
Sample_A037_PBMC_TCR_K_all	8812446	518449	8293972	0.058831453	8812421	7851064
Sample_A037_PBMC_TCR_L_all	21053845	429885	20623935	0.020418361	21053820	17568322
Sample_16_01_A037_PBMC_TCR_F_all	4457394	958772	3498597	0.215096983	4457369	4389100
Sample_16_01_A037_PBMC_TCR_H_all	6835579	1719308	5116246	0.25152339	6835554	6750376
Sample_A037_S1_all	1920124	1082540	837559	0.563786505	1920099	1867339
Sample_A037_PBMC_1S_all	4868959	2120537	2748397	0.435521638	4768430	4706036
Sample_16_11_A037_PBMC_TCR_VJ_all	1433221	413057	1020139	0.288201889	1433196	1427599
Sample_A037_CD3_1S_all	4701054	2361517	2339512	0.502337774	4701029	4651006
Cell lines and flow sorted						
M36_EZM	2318060	1380043	937992	0.595343951	2318035	2255858
M36_TIL2	1569122	769525	799572	0.490417571	1569097	1518502
OV7-TIL2	2392656	1271622	1121009	0.531468795	2392631	2320790
CEM	1291244	476090	815129	0.368706457	1291219	1216685
Jurkat	1339529	662257	677247	0.494395418	1339504	1293618
MOLT4	1278441	564484	713932	0.441540908	1278416	1240462
SUPT1	1678562	743158	935379	0.442734912	1678537	1611636
STIM1	1880814	900492	980297	0.478777806	1880789	1827853
L2D8	1651306	910355	740926	0.551293946	1651281	1603088
Patient samples						
TCL-001	3874239	1363917	2510297	0.352047718	3874214	3641564
TCL-002	4921789	1618479	3303285	0.328839574	4921764	4871138
TCL-003	4961317	1742809	3218483	0.351279509	4961292	4808248
TCL-004	4284116	1363269	2920822	0.318214773	4284091	4230674
TCL-005	5480831	1885151	3595655	0.343953499	5480806	5423859
TCL-006	5405827	415885	4989917	0.076932725	5405802	5177500
TCL-007	5135793	1690789	3444979	0.329216734	5135768	5098364
TCL-008	7798007	2759564	5038418	0.353880677	7797982	7715502
TCL-009	5006452	739003	4267424	0.147610124	5006427	4799839
TCL-010	5044768	1512141	3532602	0.299744408	5044743	4998359
TCL-011	2912824	980216	1932583	0.336517414	2912799	2891403
TCL-012	6403753	976423	5427305	0.15247668	6403728	6226299
TCL-013	6648103	894302	5753776	0.134519877	6648078	6520478
TCL-014	4577658	964191	3613442	0.210629759	4577633	4516409
TCL-015	4919394	671943	4247426	0.136590604	4919369	4678232
TCL-016	6045676	1996999	4048652	0.330318562	6045651	5967138
TCL-017	4339950	334232	4005693	0.077012869	4339925	4253000
TCL-018	2621464	397567	2223872	0.151658386	5799400	5552790
TCL-019	6616839	3224927	3391887	0.487381815	6616814	6538041
TCL-020	4825285	658203	4167057	0.136407072	4825260	4721235
TCL-021	7352598	3438740	3913833	0.467690468	7352573	7230944
TCL-022	7015117	3588858	3426234	0.511589187	7015092	6912948
TCL-023	6427168	2297299	4129844	0.357435654	6427143	6377748
TCL-024	6466998	2244807	4222166	0.347117318	6466973	6357148
TCL-025	5149354	740986	4408343	0.143898827	5149329	4979117
TCL-026	7717729	4019388	3698316	0.520799318	7717704	7610950
TCL-027	5310114	1719071	3591018	0.323735234	5310089	5258149
TCL-028	6854324	449983	6404316	0.065649508	6854299	6571528
TCL-029	4473140	636717	3836398	0.142342292	4473115	4255663
TCL-030	2901414	389561	2511828	0.134265913	2901389	2690711
TCL-031	4194422	328356	3866041	0.078283969	4194397	4104557
TCL-032	4534911	634273	3900613	0.139864487	4534886	4132215
TCL-033	3653179	489927	3163227	0.134109771	3653154	3443643
TCL-034	6905643	3346628	3558990	0.484622214	6905618	6814973
TCL-035	5989679	2953254	3036400	0.49305714	5989654	5933921
TCL-036	4715544	2109689	2605830	0.447390375	4715519	4633852
TCL-037	6664469	2293770	4370674	0.344178959	6664444	6605136
TCL-038	6155725	3173681	2982019	0.515565754	6155700	6034814
TCL-039	5025139	361053	4664061	0.071849356	5025114	4886216
TCL-040	5190944	361315	4829604	0.069604873	5190919	5085124
TCL-041	5745439	2814128	2931286	0.489802085	5745414	5649598
TCL-042	5328896	1787753	3541118	0.335482809	5328871	5288026
TCL-043	6030251	3161144	2869082	0.524214332	6030226	5874655
TCL-044	7376555	3887519	3489011	0.527010102	7376530	7249500
TCL-045	5401734	2916998	2484711	0.540011411	5401709	5338260
TCL-046	5346366	233692	5112649	0.043710438	5346341	5202430
TCL-047	6495674	3372030	3123619	0.51911934	6495649	6455304
TCL-048	6562054	3324004	3238025	0.506549321	6562029	6458959
TCL-049	4503869	1426322	3077522	0.316688163	4503844	4452847
TCL-050	5502711	387341	5115345	0.07039094	5502686	5398233
TCL-051	6305701	392089	5913587	0.062180081	6305676	6065963

TCL-052	8302037	2704496	5597516	0.325762942	8302012	8107829
TCL-053	3834967	292000	3542942	0.076141464	3834942	3767575
TCL-054	6935912	3615566	3320321	0.521281989	6935887	6892616
TCL-055	6078396	1963007	4115364	0.322948192	6078371	6014071
TCL-056	6865892	3557974	3307893	0.518210016	6865867	6816073
TCL-057	6227227	3087220	3139982	0.495761597	6227202	6169114
TCL-058	6215041	2213245	4001771	0.356111086	6215016	6155386
TCL-059	5639514	2766020	2873469	0.490471342	5639489	5564062
TCL-060	5680891	2792325	2888541	0.49152941	5680866	5628837
TCL-061	6906018	3575635	3330358	0.517756397	6905993	6843330
TCL-062	3920359	589850	3330484	0.15045816	3920334	3808959
TCL-063	4275264	769512	3505727	0.179991692	4275239	4205077
TCL-064	6551470	3277319	3274126	0.500241778	6551445	6481344

Table 4.3: Capture Sample V and J Calls

Sample	alpha VJ calls	beta VJ calls	gamma VJ calls	delta VJ calls	unmatched VJ calls	single V or J	absent V and J
A037 healthy reference							
Sample_A037_PBMC_TCR_A_all	30	111	46	0	0	171866	1728107
Sample_A037_PBMC_TCR_B_all	473	806	538	0	0	1634949	7852049
Sample_A037_PBMC_TCR_D_all	298	244	127	1	0	583395	10255883
Sample_A037_PBMC_TCR_E_all	4470	1956	2916	82	5	5486404	2573930
Sample_A037_PBMC_TCR_F_all	3932	1815	3169	84	6	5949549	7117670
Sample_A037_PBMC_TCR_G_all	101	186	78	15	0	420033	10742220
Sample_A037_PBMC_TCR_H_all	1607	1125	252	12	4	2160797	6139066
Sample_A037_PBMC_TCR_J_all	323	139	135	4	2	1112523	13794947
Sample_A037_PBMC_TCR_K_all	352	169	200	6	0	1027278	6823060
Sample_A037_PBMC_TCR_L_all	259	111	136	8	3	1057487	16510319
Sample_16_01_A037_PBMC_TCR_F_all	925	363	628	25	1	3437777	949382
Sample_16_01_A037_PBMC_TCR_H_all	1397	763	1015	21	2	4575171	2172015
Sample_A037_S1_all	1052	606	734	12	2	1255308	609626
Sample_A037_PBMC_1S_all	1008	599	834	26	1	2536312	2167257
Sample_16_11_A037_PBMC_TCR_VJ_all	340	161	329	11	0	934369	492390
Sample_A037_CD3_1S_all	6368	3264	4805	123	7	2753833	1882607
Cell lines and flow sorted							
M36_EZM	138	94	94	0	0	1521931	733602
M36_TIL2	2136	1579	1963	4	7	1015956	496858
OV7-TIL2	2619	1879	1918	52	1	1515855	798467
CEM	2450	1293	2070	0	0	818261	392612
Jurkat	1389	924	1344	0	0	895089	394873
MOLT4	1910	2833	1377	0	0	856362	377981
SUPT1	3031	2017	2157	0	0	1020846	583586
STIM1	3068	1524	2503	0	0	1192227	628532
L2D8	2074	962	948	0	0	1060361	538744
Patient samples							
TCL-001	1971	1098	1674	48	0	2380500	1256274
TCL-002	585	283	628	9	0	2811142	2058492
TCL-003	1423	901	1278	8	6	2599812	2204821
TCL-004	182	251	142	0	2	2473198	1756900
TCL-005	210	65	192	0	3	3272558	2150832
TCL-006	17	36	25	0	0	768985	4408438
TCL-007	343	141	2481	648	0	2982597	2112155
TCL-008	1267	857	1327	4	3	4868928	2843117
TCL-009	986	607	967	14	0	1069367	3727899
TCL-010	1600	960	2053	40	1	2485050	2508656
TCL-011	215	87	248	22	0	1710714	1180118
TCL-012	1620	688	2344	13	1	1571492	4650142
TCL-013	1995	1039	2144	108	7	1527402	4987784
TCL-014	155	163	290	45	0	1742539	2773218
TCL-015	1083	562	967	7	1	1084783	3590830
TCL-016	981	247	494	15	0	3030809	2934593
TCL-017	166	84	174	4	3	613083	3639487
TCL-018	623	332	545	7	0	1160605	4390679
TCL-019	3489	2654	3136	19	1	4047376	2481367
TCL-020	4218	1546	1551	0	3	986010	3727908
TCL-021	4607	2563	3523	64	6	4297650	2922532
TCL-022	1974	904	1199	11	6	4479570	2429285
TCL-023	186	86	271	2	1	2435125	3942078
TCL-024	484	371	533	12	0	3411599	2944150
TCL-025	575	241	481	1	0	1235788	3742032
TCL-026	863	471	705	39	0	4942133	2666740
TCL-027	0	0	0	0	0	2721814	2536336
TCL-028	119	77	140	0	0	913846	5657347
TCL-029	1274	727	888	4	3	985106	3267662
TCL-030	497	190	442	5	4	615177	2074397
TCL-031	5	2	396	611	0	630487	3473057
TCL-032	409	228	420	23	0	936724	3194412
TCL-033	1122	577	915	2	1	797093	2643934
TCL-034	901	469	861	24	1	1741112	5071606
TCL-035	2181	861	1674	141	2	3472975	2456088
TCL-036	5077	4087	4193	0	0	2889813	1730683
TCL-037	536	342	860	6	0	4144765	2458628
TCL-038	682	417	723	21	0	3850370	2182602
TCL-039	264	104	232	0	2	735636	4149979
TCL-040	340	228	434	0	0	739308	4344815
TCL-041	1987	1338	1755	12	0	3223885	2420622
TCL-042	229	150	287	3	0	3138235	2149123
TCL-043	273	223	299	0	0	3574689	2299172
TCL-044	638	335	605	29	0	4327667	2920227
TCL-045	140	107	117	0	2	3224632	2113263
TCL-046	741	374	842	0	0	643355	4557119
TCL-047	451	268	447	12	0	3838965	2615162
TCL-048	868	350	718	1	1	4020234	2436788
TCL-049	1208	712	1318	7	0	2691103	1758500
TCL-050	407	183	387	2	0	779518	4617737
TCL-051	119	84	83	0	0	767911	5297767
TCL-052	8600	3192	5559	101	7	5264470	2825901
TCL-053	327	203	562	0	1	561308	3205175
TCL-054	446	253	483	6	2	3805780	3085647
TCL-055	969	508	1009	13	0	3034468	2977105

TCL-056	269	127	286	34	0	2887666	3927692
TCL-057	2011	885	1324	82	4	3843001	2321808
TCL-058	276	191	275	0	1	3558414	2596230
TCL-059	1559	821	1398	24	0	3448607	2111654
TCL-060	1475	761	1463	41	3	3503916	2121179
TCL-061	200	84	143	9	0	3519287	3323608
TCL-062	647	375	627	11	2	931289	2876009
TCL-063	360	159	355	7	3	1064180	3140014
TCL-064	1187	596	1118	13	3	2942292	3536136

Table 4.4: Capture Sample Unique V and J Calls

Sample	alpha unique VJ counts	beta unique VJ counts	gamma unique VJ counts	delta unique VJ counts	total unique VJ	Unique VJ normalized to input
A037 healthy reference						
Sample_A037_PBMC_TCR_A_all	11	20	6	0	37	0.37
Sample_A037_PBMC_TCR_B_all	44	65	18	0	127	0.64
Sample_A037_PBMC_TCR_D_all	213	158	25	1	397	0.66
Sample_A037_PBMC_TCR_E_all	955	405	49	3	1412	1.77
Sample_A037_PBMC_TCR_F_all	1343	527	49	6	1925	1.93
Sample_A037_PBMC_TCR_G_all	8	18	5	1	32	0.16
Sample_A037_PBMC_TCR_H_all	502	305	24	2	833	1.39
Sample_A037_PBMC_TCR_J_all	192	90	21	3	306	1.53
Sample_A037_PBMC_TCR_K_all	268	122	32	4	426	0.71
Sample_A037_PBMC_TCR_L_all	220	85	24	3	332	0.33
Sample_16_01_A037_PBMC_TCR_F_all	414	175	41	2	632	1.26
Sample_16_01_A037_PBMC_TCR_H_all	463	235	34	3	735	2.94
Sample_A037_S1_all	446	227	36	3	712	7.12
Sample_A037_PBMC_1S_all	466	253	36	4	759	7.59
Sample_16_11_A037_PBMC_TCR_VJ_all	263	125	36	3	427	4.27
Sample_A037_CD3_1S_all	1704	710	54	7	2475	24.75
Cell lines and flow sorted						
M36_EZM	67	41	15	0	123	1.23
M36_TIL2	244	163	38	1	446	4.46
OV7-TIL2	143	114	49	5	311	3.11
CEM	6	13	5	0	24	0.24
Jurkat	14	3	5	0	22	0.22
MOLT4	5	16	7	0	28	0.28
SUPT1	9	9	6	0	24	0.24
STIM1	101	71	23	0	195	1.95
L2D8	6	3	3	0	12	0.12
Patient samples						
TCL-001	225	142	33	2	402	4.02
TCL-002	137	63	28	2	230	2.30
TCL-003	242	147	39	1	429	4.29
TCL-004	37	39	15	0	91	0.91
TCL-005	35	14	21	0	70	0.70
TCL-006	14	16	8	0	38	0.38
TCL-007	59	32	15	1	107	1.07
TCL-008	174	132	34	1	341	3.41
TCL-009	433	229	47	4	713	7.13
TCL-010	178	104	25	4	311	3.11
TCL-011	44	19	21	2	86	0.86
TCL-012	221	146	33	2	402	4.02
TCL-013	410	201	46	5	662	6.62
TCL-014	34	33	18	3	88	0.88
TCL-015	485	242	50	2	779	7.79
TCL-016	227	62	26	2	317	3.17
TCL-017	73	43	24	1	141	1.41
TCL-018	327	173	41	3	544	5.44
TCL-019	352	203	46	5	606	6.06
TCL-020	19	18	7	0	44	0.44
TCL-021	798	405	53	4	1260	12.60
TCL-022	260	132	31	2	425	4.25
TCL-023	53	23	24	1	101	1.01
TCL-024	99	79	32	1	211	2.11
TCL-025	278	113	40	1	432	4.32
TCL-026	173	112	29	3	317	3.17
TCL-027	0	0	0	0	0	0.00
TCL-028	66	37	27	0	130	1.30
TCL-029	513	262	32	3	810	8.10
TCL-030	157	70	23	1	251	2.51
TCL-031	3	1	3	3	10	0.10
TCL-032	148	89	35	4	276	2.76
TCL-033	456	205	45	1	707	7.07
TCL-034	164	103	29	5	301	3.01
TCL-035	480	186	39	5	710	7.10
TCL-036	237	146	43	0	426	4.26
TCL-037	105	64	26	1	196	1.96
TCL-038	150	99	34	2	285	2.85
TCL-039	76	32	22	0	130	1.30
TCL-040	171	106	39	0	316	3.16
TCL-041	258	160	34	2	454	4.54
TCL-042	34	28	21	1	84	0.84
TCL-043	72	60	29	0	161	1.61
TCL-044	125	77	27	3	232	2.32
TCL-045	44	32	19	0	95	0.95
TCL-046	17	9	13	0	39	0.39
TCL-047	90	61	30	2	183	1.83
TCL-048	177	75	29	1	282	2.82
TCL-049	190	128	27	3	348	3.48
TCL-050	85	41	29	1	156	1.56
TCL-051	45	32	24	0	101	1.01
TCL-052	1019	362	55	6	1442	14.42
TCL-053	50	38	28	0	116	1.16
TCL-054	120	59	24	1	204	2.04

TCL-055	214	121	30	1	366	3.66
TCL-056	90	46	32	2	170	1.70
TCL-057	435	194	33	6	668	6.68
TCL-058	51	36	21	0	108	1.08
TCL-059	294	169	57	3	523	5.23
TCL-060	349	185	31	5	570	5.70
TCL-061	44	25	15	1	85	0.85
TCL-062	309	159	39	4	511	5.11
TCL-063	174	73	38	2	287	2.87
TCL-064	353	170	57	1	581	5.81

Table 4.5: Capture Sample Unique CDR3 Calls

Sample	alpha total unique CDR3	beta total unique CDR3	gamma total unique CDR3	delta total unique CDR3	total unique CDR3	Unique CDR3 normalized to input
A037 healthy reference						
Sample_A037_PBMC_TCR_A_all	12	27	9	0	48	0.48
Sample_A037_PBMC_TCR_B_all	63	104	31	0	198	0.99
Sample_A037_PBMC_TCR_D_all	229	188	65	2	484	0.81
Sample_A037_PBMC_TCR_E_all	1367	778	348	21	2514	3.14
Sample_A037_PBMC_TCR_F_all	2066	1100	540	24	3730	3.73
Sample_A037_PBMC_TCR_G_all	11	23	11	3	48	0.24
Sample_A037_PBMC_TCR_H_all	633	482	62	3	1180	1.97
Sample_A037_PBMC_TCR_J_all	216	104	48	4	372	1.86
Sample_A037_PBMC_TCR_K_all	297	148	82	5	532	0.89
Sample_A037_PBMC_TCR_L_all	242	99	63	8	412	0.41
Sample_16_01_A037_PBMC_TCR_F_all	482	229	155	14	880	1.76
Sample_16_01_A037_PBMC_TCR_H_all	555	330	158	4	1047	4.19
Sample_A037_S1_all	509	303	141	5	958	9.58
Sample_A037_PBMC_1S_all	539	344	157	13	1053	10.53
Sample_16_11_A037_PBMC_TCR_VJ_all	293	142	114	8	557	5.57
Sample_A037_CD3_1S_all	2840	1672	691	47	5250	52.50
Cell lines and flow sorted						
M36_EZM	70	48	26	0	144	1.44
M36_TIL2	310	25	101	2	438	4.38
OV7-TIL2	219	192	83	9	503	5.03
CEM	32	29	21	0	82	0.82
Jurkat	32	21	10	0	63	0.63
MOLT4	10	66	8	0	84	0.84
SUPT1	33	39	23	0	95	0.95
STIM1	160	136	55	0	351	3.51
L2D8	14	21	10	0	45	0.45
Patient samples						
TCL-001	279	201	101	3	584	5.84
TCL-002	151	80	54	2	287	2.87
TCL-003	287	193	97	1	578	5.78
TCL-004	41	57	30	0	128	1.28
TCL-005	39	17	28	0	84	0.84
TCL-006	14	16	11	0	41	0.41
TCL-007	66	43	52	18	179	1.79
TCL-008	206	185	89	1	481	4.81
TCL-009	494	323	183	7	1007	10.07
TCL-010	223	164	79	10	476	4.76
TCL-011	55	23	32	6	116	1.16
TCL-012	253	216	102	6	577	5.77
TCL-013	516	313	167	20	1016	10.16
TCL-014	35	40	34	8	117	1.17
TCL-015	562	321	193	3	1079	10.79
TCL-016	255	75	66	3	399	3.99
TCL-017	76	47	42	2	167	1.67
TCL-018	371	224	140	5	740	7.40
TCL-019	448	314	163	8	933	9.33
TCL-020	83	67	10	0	160	1.60
TCL-021	1084	714	275	12	2085	20.85
TCL-022	303	170	84	4	561	5.61
TCL-023	57	31	40	1	129	1.29
TCL-024	114	101	68	3	286	2.86
TCL-025	308	140	108	1	557	5.57
TCL-026	202	139	71	5	417	4.17
TCL-027	0	0	0	0	0	0.00
TCL-028	69	38	50	0	157	1.57
TCL-029	613	381	164	3	1161	11.61
TCL-030	177	78	72	3	330	3.30
TCL-031	3	1	13	11	28	0.28
TCL-032	162	109	79	10	360	3.60
TCL-033	532	290	158	1	981	9.81
TCL-034	189	129	78	13	409	4.09
TCL-035	583	252	138	10	983	9.83
TCL-036	317	301	99	0	717	7.17
TCL-037	123	82	74	1	280	2.80
TCL-038	166	125	75	4	370	3.70
TCL-039	82	38	37	0	157	1.57
TCL-040	181	125	102	0	408	4.08
TCL-041	306	231	118	3	658	6.58
TCL-042	37	34	33	1	105	1.05
TCL-043	77	73	50	0	200	2.00
TCL-044	140	99	65	8	312	3.12
TCL-045	45	35	26	0	106	1.06
TCL-046	31	21	16	0	68	0.68
TCL-047	114	78	53	5	250	2.50
TCL-048	212	100	78	1	391	3.91
TCL-049	224	168	85	3	480	4.80
TCL-050	104	52	42	1	199	1.99

TCL-051	48	36	32	0	116	1.16
TCL-052	1469	619	279	15	2382	23.82
TCL-053	57	44	50	0	151	1.51
TCL-054	127	71	56	1	255	2.55
TCL-055	259	147	108	2	516	5.16
TCL-056	96	54	59	4	213	2.13
TCL-057	520	284	120	11	935	9.35
TCL-058	58	45	32	0	135	1.35
TCL-059	351	220	123	4	698	6.98
TCL-060	408	247	123	7	785	7.85
TCL-061	47	29	25	2	103	1.03
TCL-062	346	214	113	6	679	6.79
TCL-063	188	85	87	3	363	3.63
TCL-064	418	242	162	3	825	8.25

Table 5: A037 Lymphotrack vs A037 CapTCR-Seq (single sample), VJ gene rearrangement counts and proportions (MiXCR)

V-Gene	A037-Cap-TRBJ1	A037-Cap-TRBJ2	A037-Cap-Prop-TRBJ1	A037-Cap-Prop-TRBJ2	A037-PCR-TRBJ1	A037-PCR-TRBJ2	A037-PCR-Prop-TRBJ1	A037-PCR-Prop-TRBJ2
TRBV 10-1	5	6	0.01	0.02	33	38	0.01	0.01
TRBV 10-2	3	1	0.01	0.00	15	10	0.00	0.00
TRBV 10-3	8	8	0.02	0.03	68	47	0.02	0.02
TRBV 11-1	0	0	0.00	0.00	10	19	0.00	0.01
TRBV 11-2	4	3	0.01	0.01	104	89	0.03	0.03
TRBV 13	1	6	0.00	0.02	30	29	0.01	0.01
TRBV 12-5	1	4	0.00	0.01	35	65	0.01	0.02
TRBV 14	4	4	0.01	0.01	55	59	0.02	0.02
TRBV 15	5	5	0.01	0.02	74	52	0.02	0.02
TRBV 16	1	0	0.00	0.00	5	1	0.00	0.00
TRBV 18	19	8	0.06	0.03	135	86	0.04	0.03
TRBV 19	28	20	0.08	0.07	166	112	0.05	0.04
TRBV 2	13	17	0.04	0.06	163	138	0.05	0.05
TRBV 20-1	35	39	0.10	0.14	362	330	0.11	0.11
TRBV 21-1	9	7	0.03	0.02	0	0	0.00	0.00
TRBV 23-1	1	2	0.00	0.01	27	15	0.01	0.00
TRBV 24-1	7	17	0.02	0.06	63	57	0.02	0.02
TRBV 25-1	3	2	0.01	0.01	57	46	0.02	0.02
TRBV 27	19	14	0.06	0.05	134	103	0.04	0.03
TRBV 28	22	14	0.07	0.05	182	122	0.05	0.04
TRBV 29-1	13	6	0.04	0.02	105	85	0.03	0.03
TRBV 3-1	3	4	0.01	0.01	42	30	0.01	0.01
TRBV 30	7	6	0.02	0.02	56	39	0.02	0.01
TRBV 4-1	13	6	0.04	0.02	87	78	0.03	0.03
TRBV 4-2	2	2	0.01	0.01	40	44	0.01	0.01
TRBV 4-3	1	0	0.00	0.00	57	45	0.02	0.01
TRBV 5-1	17	17	0.05	0.06	114	113	0.03	0.04
TRBV 5-4	3	2	0.01	0.01	50	71	0.01	0.02
TRBV 5-6	0	1	0.00	0.00	37	46	0.01	0.02
TRBV 5-8	1	0	0.00	0.00	24	31	0.01	0.01

TRBV 6-1	6	5	0.02	0.02	96	68	0.03	0.02
TRBV 6-4	5	7	0.01	0.02	66	109	0.02	0.04
TRBV 6-5	12	4	0.04	0.01	169	123	0.05	0.04
TRBV 6-6	5	4	0.01	0.01	69	51	0.02	0.02
TRBV 7-2	5	9	0.01	0.03	99	122	0.03	0.04
TRBV 6-7	0	2	0.00	0.01	5	5	0.00	0.00
TRBV 7-3	7	5	0.02	0.02	85	123	0.03	0.04
TRBV 7-4	1	0	0.00	0.00	7	5	0.00	0.00
TRBV 7-6	1	0	0.00	0.00	3	6	0.00	0.00
TRBV 7-8	5	3	0.01	0.01	63	38	0.02	0.01
TRBV 7-9	20	11	0.06	0.04	150	124	0.04	0.04
TRBV 9	20	17	0.06	0.06	171	186	0.05	0.06
TRBV 11-3	0	0	0.00	0.00	19	67	0.01	0.02
TRBV 12-4	0	0	0.00	0.00	1	0	0.00	0.00
TRBV 12-3	0	0	0.00	0.00	0	0	0.00	0.00
TRBV 5-5	0	0	0.00	0.00	1	2	0.00	0.00
TRBV 6-3	0	0	0.00	0.00	2	3	0.00	0.00
TRBV 6-2	0	0	0.00	0.00	0	0	0.00	0.00
TRBV 7-1	0	0	0.00	0.00	0	0	0.00	0.00
TRBV 7-7	0	0	0.00	0.00	1	2	0.00	0.00

Table 6.1: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H128

V-Gene	H128-Cap-TRBJ1	H128-Cap-TRBJ2	H128-PCR-TRBJ1	H128-PCR-TRBJ2	H128-PCR:Cap-TRBJ1	H128-PCR:Cap-TRBJ2
TRBV10-1	0.001574803	0.004918033	0.006918664	0.005820557	4.393351333	1.183513155
TRBV10-2	0	0.001639344	0.001349983	0.001561613	#DIV/0!	0.952583759
TRBV10-3	0.015748031	0.02295082	0.016537293	0.016183986	1.050118124	0.705159406
TRBV11-1	0	0.001639344	0.003881201	0.006246451	#DIV/0!	3.810335037
TRBV11-2	0.001574803	0.008196721	0.022105974	0.029244747	14.03729328	3.567859171
TRBV12-5	0.011023622	0.008196721	0.005906176	0.020159001	0.535774553	2.459398069
TRBV11-3	0.001574803	0.004918033	0.018224772	0.024701874	11.57273034	5.022714367
TRBV13	0.004724409	0.008196721	0.006074924	0.005252697	1.285858927	0.640829074
TRBV14	0.023622047	0.026229508	0.017549781	0.024134015	0.742940713	0.920109313
TRBV15	0.003149606	0.016393443	0.012656092	0.018171493	4.018309146	1.108461102
TRBV16	0.001574803	0.001639344	0.001518731	0.000993754	0.964394195	0.606189665
TRBV18	0.028346457	0.02295082	0.032230847	0.023282226	1.137032662	1.014439847
TRBV19	0.092913386	0.086885246	0.089436382	0.063884157	0.96257801	0.735270483
TRBV2	0.064566929	0.054098361	0.043368208	0.029386712	0.671678342	0.543208921
TRBV20-1	0.108661417	0.11147541	0.072561593	0.107467348	0.667776979	0.964045329
TRBV21-1	0.031496063	0.024590164	0	0	0	0
TRBV23-1	0.006299213	0.006557377	0.004724941	0.006672345	0.750084374	1.017532652
TRBV24-1	0.018897638	0.032786885	0.013668579	0.02399205	0.723295646	0.731757524
TRBV25-1	0.020472441	0.009836066	0.016537293	0.010647359	0.807783172	1.082481545
TRBV27	0.040944882	0.049180328	0.039487006	0.0379046	0.964394195	0.77072686
TRBV28	0.091338583	0.032786885	0.059061762	0.0379046	0.64662446	1.15609029
TRBV29-1	0.031496063	0.042622951	0.02716841	0.027683135	0.86259703	0.649488927
TRBV3-1	0.011023622	0.003278689	0.015356058	0.012208972	1.393013837	3.723736513
TRBV30	0.058267717	0.037704918	0.044380695	0.022288472	0.761668689	0.591129052
TRBV4-1	0.004724409	0.009836066	0.011643604	0.01362862	2.464562943	1.385576377
TRBV4-2	0.003149606	0.001639344	0.009956126	0.011641113	3.161069862	7.101078932
TRBV4-3	0	0.001639344	0.007762403	0.010647359	#DIV/0!	6.494889267
TRBV5-1	0.056692913	0.093442623	0.069186635	0.078648495	1.22037537	0.841676878
TRBV5-4	0.012598425	0.01147541	0.023455957	0.027115275	1.861816571	2.362902572
TRBV5-5	0	0	0.001181235	0.000851789	#DIV/0!	#DIV/0!
TRBV5-6	0.004724409	0.004918033	0.016368545	0.014764338	3.464675442	3.00208215
TRBV5-8	0.001574803	0	0.007087411	0.005252697	4.500506244	#DIV/0!
TRBV6-1	0.053543307	0.032786885	0.056530543	0.03762067	1.055791031	1.147430437
TRBV6-4	0.014173228	0.01147541	0.012993588	0.012492902	0.91676979	1.088667153
TRBV6-6	0.011023622	0.004918033	0.02480594	0.01717774	2.250253122	3.492807117
TRBV6-5	0.028346457	0.014754098	0.038643267	0.031516184	1.363248584	2.136096915
TRBV6-7	0	0	0.001012487	0.001561613	#DIV/0!	#DIV/0!
TRBV7-1	0	0	0	0	#DIV/0!	#DIV/0!
TRBV7-2	0.017322835	0.009836066	0.035774553	0.038614424	2.065167367	3.925799735

TRBV7-3	0.006299213	0.029508197	0.014681066	0.026973311	2.330619305	0.914095527
TRBV7-4	0	0	0.002531218	0.002413401	#DIV/0!	#DIV/0!
TRBV7-6	0.004724409	0	0.001181235	0.000141965	0.250028125	#DIV/0!
TRBV7-7	0.001574803	0.003278689	0.000674992	0.001135718	0.428619642	0.346394094
TRBV7-8	0.017322835	0.009836066	0.01518731	0.017319705	0.876721996	1.760836646
TRBV7-9	0.053543307	0.055737705	0.040668242	0.043015332	0.759539219	0.771745666
TRBV9	0.039370079	0.085245902	0.036955788	0.05124929	0.938677017	0.601193596
TRBV12-4	0	0	0.000843739	0.00028393	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0	0.000168748	0.000141965	#DIV/0!	#DIV/0!

Table 6.2: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H129

V-Gene	H129-Cap-TRBJ1	H129-Cap-TRBJ2	H129-PCR-TRBJ1	H129-PCR-TRBJ2	H129-PCR:Cap-TRBJ1	H129-PCR:Cap-TRBJ2
TRBV10-1	0.010822511	0.019148936	0.008981425	0.008946878	0.82988365	0.467225847
TRBV10-2	0	0.004255319	0.003470096	0.003168686	#DIV/0!	0.744641193
TRBV10-3	0.043290043	0.019148936	0.018371096	0.014911463	0.424372321	0.778709744
TRBV11-1	0.004329004	0	0.004286589	0.005032619	0.990202082	#DIV/0!
TRBV11-2	0.002164502	0.004255319	0.024698918	0.02833178	11.41090018	6.657968313
TRBV12-5	0.002164502	0	0.009185548	0.018266542	4.243723209	#DIV/0!
TRBV11-3	0	0.012765957	0.007552562	0.016029823	#DIV/0!	1.255669463
TRBV13	0.008658009	0.008510638	0.004490712	0.006523765	0.518677281	0.766542404
TRBV14	0.012987013	0.027659574	0.01735048	0.021621622	1.335986936	0.781704782
TRBV15	0.019480519	0.012765957	0.018575219	0.017707363	0.953527931	1.387076732
TRBV16	0.004329004	0.00212766	0.001632986	0.000745573	0.377219841	0.350419385
TRBV18	0.032467532	0.034042553	0.035517453	0.038024231	1.093937538	1.116961789
TRBV19	0.097402597	0.082978723	0.065931823	0.044920783	0.676900048	0.541353024
TRBV2	0.067099567	0.053191489	0.047560727	0.037278658	0.708808249	0.70083877
TRBV20-1	0.119047619	0.144680851	0.091243111	0.118732526	0.766442131	0.82065128
TRBV21-1	0.036796537	0.014893617	0	0	0	0
TRBV23-1	0.004329004	0.006382979	0.009389671	0.005591799	2.169014085	0.876048462
TRBV24-1	0.03030303	0.031914894	0.012655644	0.018639329	0.417636252	0.584032308
TRBV25-1	0.004329004	0.008510638	0.015717493	0.012861137	3.630740968	1.511183597
TRBV27	0.060606061	0.040425532	0.032047357	0.033178006	0.528781384	0.820719086
TRBV28	0.071428571	0.046808511	0.057562768	0.031500466	0.805878751	0.672964501
TRBV29-1	0.025974026	0.036170213	0.034496836	0.035228332	1.328128189	0.973959761
TRBV3-1	0.008658009	0.004255319	0.008777301	0.008574091	1.013778322	2.014911463
TRBV30	0.062770563	0.023404255	0.036538069	0.021062442	0.582089237	0.899940693
TRBV4-1	0.004329004	0.004255319	0.020820576	0.020876048	4.80955297	4.905871389
TRBV4-2	0	0.00212766	0.012859767	0.01584343	#DIV/0!	7.446411929
TRBV4-3	0.002164502	0.00212766	0.016533987	0.027586207	7.638701776	12.96551724
TRBV5-1	0.071428571	0.09787234	0.067768932	0.076421249	0.948765054	0.780825803
TRBV5-4	0.002164502	0.008510638	0.015105123	0.020316869	6.978567055	2.38723206
TRBV5-5	0	0	0.000816493	0.000372787	#DIV/0!	#DIV/0!
TRBV5-6	0.004329004	0.004255319	0.012247397	0.012115564	2.829148806	2.847157502
TRBV5-8	0	0.00212766	0.011022658	0.005778192	#DIV/0!	2.715750233
TRBV6-1	0.019480519	0.017021277	0.027556644	0.017520969	1.414574403	1.029356943
TRBV6-4	0.010822511	0.025531915	0.014901	0.017148183	1.376852419	0.671637154
TRBV6-6	0.019480519	0.006382979	0.020004082	0.014352283	1.026876233	2.248524386
TRBV6-5	0.017316017	0.019148936	0.044090631	0.034296365	2.546233925	1.791032412
TRBV6-7	0.002164502	0	0.000204123	0.000745573	0.09430496	#DIV/0!
TRBV7-1	0.006493506	0	0	0	0	#DIV/0!
TRBV7-2	0.019480519	0.029787234	0.04960196	0.056290774	2.546233925	1.889761683

TRBV7-3	0.008658009	0.021276596	0.01796285	0.029263747	2.074709124	1.375396086
TRBV7-4	0	0.004255319	0.00183711	0.00111836	#DIV/0!	0.262814539
TRBV7-6	0	0	0.000408247	0.000931966	#DIV/0!	#DIV/0!
TRBV7-7	0	0	0.000408247	0.000186393	#DIV/0!	#DIV/0!
TRBV7-8	0.010822511	0.010638298	0.019799959	0.019384902	1.829516228	1.822180801
TRBV7-9	0.036796537	0.042553191	0.045723617	0.035228332	1.242606534	0.827865797
TRBV9	0.034632035	0.063829787	0.033272096	0.046598322	0.960731782	0.730040385
TRBV12-4	0	0	0.00061237	0.000186393	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0	0.000408247	0.00055918	#DIV/0!	#DIV/0!

Table 6.3: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H130

V-Gene	H130-Cap-TRBJ1	H130-Cap-TRBJ2	H130-PCR-TRBJ1	H130-PCR-TRBJ2	H130-PCR:Cap-TRBJ1	H130-PCR:Cap-TRBJ2
TRBV10-1	0.008532423	0.00896861	0.006614039	0.007214206	0.775165351	0.804384018
TRBV10-2	0.003412969	0.006726457	0.003627054	0.001664817	1.062726691	0.247502775
TRBV10-3	0.0221843	0.031390135	0.017921912	0.013041065	0.807864634	0.415451086
TRBV11-1	0.001706485	0.002242152	0.004053766	0.00554939	2.375506721	2.475027747
TRBV11-2	0.005119454	0.006726457	0.019842116	0.016925638	3.875826755	2.516278209
TRBV12-5	0	0.006726457	0.00981438	0.019700333	#DIV/0!	2.928782834
TRBV11-3	0.001706485	0.006726457	0.007467463	0.016648169	4.375933433	2.475027747
TRBV13	0.005119454	0.00896861	0.004267122	0.006936737	0.83351113	0.773446171
TRBV14	0.020477816	0.033632287	0.01856198	0.017480577	0.906443354	0.519755827
TRBV15	0.029010239	0.029147982	0.016855131	0.016925638	0.581006288	0.580679587
TRBV16	0.001706485	0	0.000640068	0.000277469	0.375080009	#DIV/0!
TRBV18	0.04778157	0.02690583	0.039684233	0.038290788	0.830534305	1.423140954
TRBV19	0.097269625	0.080717489	0.06165991	0.055771365	0.633907149	0.690945246
TRBV2	0.054607509	0.035874439	0.050352038	0.038013319	0.922071688	1.059621254
TRBV20-1	0.138225256	0.109865471	0.101130787	0.101553829	0.731637548	0.924347097
TRBV21-1	0.027303754	0.033632287	0	0	0	0
TRBV23-1	0.011945392	0.004484305	0.005333902	0.006936737	0.44652382	1.546892342
TRBV24-1	0.0221843	0.024663677	0.011094517	0.020532741	0.500106678	0.832509333
TRBV25-1	0.006825939	0.004484305	0.013014722	0.008046615	1.90665671	1.794395117
TRBV27	0.035836177	0.047085202	0.024109238	0.027469478	0.672762555	0.583399397
TRBV28	0.064846416	0.053811659	0.055259228	0.052441731	0.852155458	0.974542175
TRBV29-1	0.035836177	0.044843049	0.026456155	0.029689234	0.738252715	0.662069922
TRBV3-1	0.003412969	0.006726457	0.013014722	0.014983352	3.81331342	2.227524972
TRBV30	0.034129693	0.02690583	0.036270536	0.018867925	1.062726691	0.701257862
TRBV4-1	0.0221843	0.015695067	0.02837636	0.028024417	1.279119003	1.785555732
TRBV4-2	0.003412969	0	0.013441434	0.022752497	3.93834009	#DIV/0!
TRBV4-3	0.005119454	0.006726457	0.02240239	0.023862375	4.375933433	3.547539771
TRBV5-1	0.061433447	0.060538117	0.052698955	0.065760266	0.857821871	1.086262178
TRBV5-4	0.005119454	0.011210762	0.019842116	0.016370699	3.875826755	1.460266371
TRBV5-5	0	0.002242152	0.000640068	0.000554939	#DIV/0!	0.247502775
TRBV5-6	0.003412969	0	0.019202048	0.013318535	5.626200128	#DIV/0!
TRBV5-8	0.003412969	0.002242152	0.013014722	0.008879023	3.81331342	3.960044395
TRBV6-1	0.011945392	0.015695067	0.032430126	0.024694784	2.714864824	1.573410496
TRBV6-4	0.008532423	0.015695067	0.011947941	0.014150943	1.400298699	0.901617251
TRBV6-6	0.011945392	0.004484305	0.019202048	0.014983352	1.607485751	3.341287458
TRBV6-5	0.018771331	0.015695067	0.039470877	0.034406215	2.10272126	2.192167433
TRBV6-7	0	0.002242152	0.000853424	0.001942286	#DIV/0!	0.866259711
TRBV7-1	0	0	0	0	#DIV/0!	#DIV/0!
TRBV7-2	0.039249147	0.047085202	0.055259228	0.062708102	1.407909018	1.331800645

TRBV7-3	0.015358362	0.031390135	0.016855131	0.028579356	1.097456321	0.910456635
TRBV7-4	0.005119454	0	0.002133561	0.001942286	0.416755565	#DIV/0!
TRBV7-6	0.001706485	0.004484305	0.000426712	0.001109878	0.250053339	0.247502775
TRBV7-7	0.001706485	0.002242152	0.000213356	0.000554939	0.12502667	0.247502775
TRBV7-8	0.013651877	0.013452915	0.018988692	0.018035516	1.390921698	1.34064003
TRBV7-9	0.04778157	0.060538117	0.046084916	0.036625971	0.964491451	0.605006783
TRBV9	0.040955631	0.047085202	0.038617453	0.044395117	0.942909466	0.942867713
TRBV12-4	0	0	0.000640068	0.000277469	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0	0.000213356	0.001109878	#DIV/0!	#DIV/0!

Table 6.4: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H131

V-Gene	H131-Cap-TRBJ1	H131-Cap-TRBJ2	H131-PCR-TRBJ1	H131-PCR-TRBJ2	H131-PCR:Cap-TRBJ1	H131-PCR:Cap-TRBJ2
TRBV10-1	0.006263048	0.009677419	0.009836852	0.007963989	1.570617402	0.822945522
TRBV10-2	0.006263048	0.006451613	0.003598848	0.008310249	0.574616123	1.288088643
TRBV10-3	0.03131524	0.029032258	0.019433781	0.024238227	0.620585413	0.834872268
TRBV11-1	0	0	0.002639155	0.004155125	#DIV/0!	#DIV/0!
TRBV11-2	0.012526096	0.006451613	0.02831094	0.025277008	2.26015675	3.917936288
TRBV12-5	0.006263048	0.003225806	0.008637236	0.021468144	1.379078695	6.655124654
TRBV11-3	0	0.003225806	0.010796545	0.018351801	#DIV/0!	5.689058172
TRBV13	0.004175365	0.009677419	0.003598848	0.007271468	0.861924184	0.751385042
TRBV14	0.012526096	0.019354839	0.020873321	0.019736842	1.666386756	1.019736842
TRBV15	0.035490605	0.019354839	0.017514395	0.017313019	0.493493847	0.894506002
TRBV16	0.002087683	0	0.002399232	0.000692521	1.149232246	#DIV/0!
TRBV18	0.043841336	0.061290323	0.029510557	0.036703601	0.673121744	0.598848229
TRBV19	0.108559499	0.070967742	0.060940499	0.055401662	0.561355751	0.780659783
TRBV2	0.043841336	0.029032258	0.035988484	0.020775623	0.820880175	0.715604801
TRBV20-1	0.158663883	0.151612903	0.114443378	0.10699446	0.721294449	0.705708139
TRBV21-1	0.018789144	0.019354839	0	0.000692521	0	0.03578024
TRBV23-1	0.010438413	0.019354839	0.00743762	0.004501385	0.712523992	0.23257156
TRBV24-1	0.022964509	0.009677419	0.009836852	0.019044321	0.428350201	1.967913204
TRBV25-1	0.010438413	0.006451613	0.010796545	0.00900277	1.034309021	1.395429363
TRBV27	0.060542797	0.041935484	0.038387716	0.03601108	0.63405917	0.858725762
TRBV28	0.060542797	0.041935484	0.0506238	0.033933518	0.83616553	0.809183891
TRBV29-1	0.029227557	0.029032258	0.030950096	0.029432133	1.058935426	1.013773469
TRBV3-1	0	0.012903226	0.011516315	0.007271468	#DIV/0!	0.563538781
TRBV30	0.025052192	0.022580645	0.02231286	0.010734072	0.89065499	0.475366047
TRBV4-1	0.010438413	0.006451613	0.024472169	0.024238227	2.344433781	3.756925208
TRBV4-2	0.002087683	0.012903226	0.007917466	0.013157895	3.792466411	1.019736842
TRBV4-3	0	0.003225806	0.02303263	0.029432133	#DIV/0!	9.123961219
TRBV5-1	0.052192067	0.05483871	0.050863724	0.065443213	0.974548944	1.193376242
TRBV5-4	0.002087683	0.009677419	0.01559501	0.015927978	7.470009597	1.645891043
TRBV5-5	0	0.003225806	0.00071977	0.00034626	#DIV/0!	0.10734072
TRBV5-6	0.006263048	0.003225806	0.019673704	0.013850416	3.141234805	4.293628809
TRBV5-8	0	0.006451613	0.011036468	0.007963989	#DIV/0!	1.234418283
TRBV6-1	0.014613779	0.022580645	0.025191939	0.023545706	1.723848369	1.042738425
TRBV6-4	0.010438413	0.016129032	0.012236084	0.021814404	1.172216891	1.352493075
TRBV6-6	0.006263048	0.006451613	0.021113244	0.019044321	3.371081254	2.951869806
TRBV6-5	0.022964509	0.025806452	0.053262956	0.031163435	2.319359623	1.207583102
TRBV6-7	0	0.003225806	0.000479846	0.000692521	#DIV/0!	0.21468144
TRBV7-1	0	0.003225806	0	0	#DIV/0!	0
TRBV7-2	0.025052192	0.038709677	0.057101727	0.065789474	2.279310621	1.699561404

TRBV7-3	0.014613779	0.029032258	0.01487524	0.025623269	1.017891418	0.882579255
TRBV7-4	0	0	0.001919386	0.002077562	#DIV/0!	#DIV/0!
TRBV7-6	0.004175365	0	0.00071977	0	0.172384837	#DIV/0!
TRBV7-7	0	0.003225806	0.000239923	0	#DIV/0!	0
TRBV7-8	0.012526096	0.019354839	0.016794626	0.022160665	1.340770953	1.144967682
TRBV7-9	0.052192067	0.05483871	0.049664107	0.037396122	0.951564299	0.681929281
TRBV9	0.054279749	0.051612903	0.041506718	0.054709141	0.764681456	1.059989612
TRBV12-4	0	0	0.000479846	0.00034626	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0.003225806	0.00071977	0	#DIV/0!	0

Table 6.5: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H132

V-Gene	H132-Cap-TRBJ1	H132-Cap-TRBJ2	H132-PCR-TRBJ1	H132-PCR-TRBJ2	H132-PCR:Cap-TRBJ1	H132-PCR:Cap-TRBJ2
TRBV10-1	0.00887574	0.008517888	0.010612639	0.014319809	1.195690626	1.681145585
TRBV10-2	0.01035503	0.008517888	0.0065927	0.005114218	0.636666437	0.600409137
TRBV10-3	0.029585799	0.04088586	0.02106448	0.016365496	0.711979418	0.400272758
TRBV11-1	0.00147929	0	0.001607976	0.002216161	1.086991478	#DIV/0!
TRBV11-2	0.00591716	0.005110733	0.021386075	0.024036822	3.614246663	4.70320491
TRBV12-5	0.00887574	0	0.005306319	0.019093079	0.597845313	#DIV/0!
TRBV11-3	0.00147929	0.008517888	0.009004663	0.024548244	6.087152275	2.88196386
TRBV13	0.00739645	0.010221465	0.005145522	0.006648483	0.695674546	0.650443232
TRBV14	0.019230769	0.017035775	0.021386075	0.023695875	1.112075896	1.390947835
TRBV15	0.026627219	0.02044293	0.025406014	0.019945448	0.954136964	0.975664848
TRBV16	0	0.003407155	0.001768773	0.00085237	#DIV/0!	0.250170474
TRBV18	0.035502959	0.02725724	0.041968162	0.02829867	1.182103232	1.038207467
TRBV19	0.087278107	0.06132879	0.061585464	0.048073645	0.705623281	0.783867485
TRBV2	0.038461538	0.04770017	0.045344911	0.035288101	1.17896768	0.73978983
TRBV20-1	0.112426036	0.165247019	0.093905773	0.120866008	0.835267136	0.731426252
TRBV21-1	0.013313609	0.032367973	0	0.000170474	0	0.005266747
TRBV23-1	0.00591716	0.00681431	0.0065927	0.005114218	1.114166265	0.750511422
TRBV24-1	0.031065089	0.025553663	0.017044541	0.026252983	0.548671889	1.027366746
TRBV25-1	0.017751479	0.01362862	0.009165461	0.012444596	0.516320952	0.91312223
TRBV27	0.051775148	0.02725724	0.034571475	0.040402318	0.667723336	1.482260058
TRBV28	0.088757396	0.098807496	0.0657662	0.048926014	0.740965857	0.495165007
TRBV29-1	0.023668639	0.030664395	0.026531597	0.02437777	1.120959961	0.794986173
TRBV3-1	0.016272189	0.00681431	0.01575816	0.017047392	0.968410589	2.501704739
TRBV30	0.041420118	0.023850085	0.036340248	0.024889192	0.877357407	1.043568263
TRBV4-1	0.016272189	0.00681431	0.02894356	0.025571088	1.778713327	3.752557109
TRBV4-2	0	0.003407155	0.0065927	0.006648483	#DIV/0!	1.951329697
TRBV4-3	0.00443787	0.003407155	0.014793375	0.016195022	3.333440532	4.753239004
TRBV5-1	0.066568047	0.066439523	0.056118347	0.068019093	0.843022279	1.023774555
TRBV5-4	0.01183432	0.003407155	0.023315646	0.022843505	1.970172053	6.704568701
TRBV5-5	0	0.001703578	0.000803988	0.000170474	#DIV/0!	0.10006819
TRBV5-6	0.00591716	0.005110733	0.018813314	0.0156836	3.179450072	3.068757813
TRBV5-8	0.01035503	0.003407155	0.009808651	0.009205592	0.947235431	2.701841118
TRBV6-1	0.026627219	0.035775128	0.037787426	0.03221957	1.419127763	0.900613706
TRBV6-4	0.016272189	0.059625213	0.025245216	0.042618479	1.551433291	0.714772783
TRBV6-6	0.00739645	0.008517888	0.014632578	0.013808387	1.978324489	1.621104671
TRBV6-5	0.028106509	0.017035775	0.04341534	0.032560518	1.5446721	1.911302421
TRBV6-7	0.00147929	0	0.00128638	0.001534265	0.869593182	#DIV/0!
TRBV7-1	0	0.001703578	0	0	#DIV/0!	0
TRBV7-2	0.026627219	0.01362862	0.038430616	0.034435731	1.443283129	2.526721787

TRBV7-3	0.00443787	0.010221465	0.008039878	0.009035118	1.811652463	0.883935675
TRBV7-4	0	0	0.000803988	0.001022844	#DIV/0!	#DIV/0!
TRBV7-6	0.00295858	0.001703578	0.000803988	0.000681896	0.271747869	0.400272758
TRBV7-7	0	0.001703578	0.000321595	0.000681896	#DIV/0!	0.400272758
TRBV7-8	0.014792899	0.00681431	0.014632578	0.01261507	0.989162245	1.851261507
TRBV7-9	0.034023669	0.018739353	0.046309696	0.037504262	1.361102372	2.001363791
TRBV9	0.038461538	0.04088586	0.024441228	0.027616775	0.635471941	0.67546028
TRBV12-4	0	0	0.000160798	0.000170474	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0	0.00064319	0.000170474	#DIV/0!	#DIV/0!

Table 6.6: Additional PBMC Lymphotrack vs CapTCR-Seq VJ rearrangement counts and proportions (MiXCR) for sample H133

V-Gene	H133-Cap-TRBJ1	H133-Cap-TRBJ2	H133-PCR-TRBJ1	H133-PCR-TRBJ2	H133-PCR:Cap-TRBJ1	H133-PCR:Cap-TRBJ2
TRBV10-1	0.013761468	0.018867925	0.008936243	0.010028871	0.649367016	0.531530163
TRBV10-2	0.004587156	0.003537736	0.004811823	0.005014435	1.048977488	1.417413767
TRBV10-3	0.027522936	0.030660377	0.020793951	0.018994074	0.755513548	0.619499024
TRBV11-1	0.002293578	0	0.004639973	0.003950767	2.023028012	#DIV/0!
TRBV11-2	0.006880734	0.008254717	0.024918371	0.028415134	3.621469897	3.442290577
TRBV12-5	0.001146789	0.003537736	0.00618663	0.023248746	5.394741364	6.571645647
TRBV11-3	0.004587156	0.001179245	0.008764393	0.014891354	1.910637567	12.62786811
TRBV13	0.006880734	0.005896226	0.006702183	0.006837867	0.974050524	1.159702173
TRBV14	0.016055046	0.018867925	0.022340608	0.017626501	1.391500749	0.934204528
TRBV15	0.028669725	0.017688679	0.017700636	0.017170643	0.617398178	0.970713671
TRBV16	0.002293578	0.001179245	0.000515553	0.000455858	0.22478089	0.386567391
TRBV18	0.027522936	0.037735849	0.037291631	0.030542471	1.354929255	0.809375475
TRBV19	0.095183486	0.067216981	0.058772985	0.045129919	0.617470397	0.671406521
TRBV2	0.053899083	0.057783019	0.050867847	0.035708859	0.943760901	0.617981884
TRBV20-1	0.135321101	0.149764151	0.107750473	0.127488224	0.79625773	0.85125995
TRBV21-1	0.029816514	0.017688679	0.000171851	0	0.005763613	0
TRBV23-1	0.009174312	0.009433962	0.007045884	0.006989819	0.768001375	0.740920833
TRBV24-1	0.014908257	0.033018868	0.013060663	0.019297979	0.87606911	0.584453079
TRBV25-1	0.013761468	0.005896226	0.014091768	0.010940587	1.024001833	1.855523477
TRBV27	0.047018349	0.04009434	0.031105001	0.031302234	0.661550262	0.780714535
TRBV28	0.060779817	0.043632075	0.046056023	0.026743656	0.757751932	0.612935683
TRBV29-1	0.025229358	0.04245283	0.038494587	0.039051816	1.525785436	0.919887217
TRBV3-1	0.012614679	0.001179245	0.010139199	0.007141772	0.803761971	6.056222459
TRBV30	0.04587156	0.02004717	0.035573123	0.02583194	0.775494071	1.28855797
TRBV4-1	0.020642202	0.018867925	0.020450249	0.015499164	0.99070096	0.821455706
TRBV4-2	0.001146789	0.001179245	0.010998453	0.012612065	9.590651315	10.69503115
TRBV4-3	0.002293578	0.005896226	0.017872487	0.021577268	7.792404193	3.659504635
TRBV5-1	0.069954128	0.076650943	0.061522598	0.07156967	0.879470587	0.933708929
TRBV5-4	0.008027523	0.009433962	0.015122873	0.02112141	1.883877937	2.238869473
TRBV5-5	0.001146789	0	0.000515553	0.000759763	0.44956178	#DIV/0!
TRBV5-6	0.001146789	0.010613208	0.009451796	0.009421061	8.241965974	0.887673268
TRBV5-8	0.005733945	0.001179245	0.009623647	0.007749582	1.67836398	6.571645647
TRBV6-1	0.026376147	0.017688679	0.028183537	0.017778453	1.068523652	1.005075217
TRBV6-4	0.013761468	0.015330189	0.014091768	0.015347212	1.024001833	1.001110423
TRBV6-6	0.010321101	0.008254717	0.0206221	0.012612065	1.998052357	1.527861593
TRBV6-5	0.019495413	0.009433962	0.048461935	0.032669807	2.485812197	3.462999544
TRBV6-7	0	0.002358491	0.000171851	0.001063668	#DIV/0!	0.450995289
TRBV7-1	0.001146789	0	0	0	0	#DIV/0!
TRBV7-2	0.026376147	0.035377358	0.04949304	0.060629084	1.876431779	1.7137821

TRBV7-3	0.014908257	0.028301887	0.016325829	0.038444005	1.095086388	1.35835486
TRBV7-4	0.001146789	0.004716981	0.002234061	0.001063668	1.948101048	0.225497645
TRBV7-6	0	0.001179245	0.000171851	0.00060781	#DIV/0!	0.515423188
TRBV7-7	0	0.001179245	0.000171851	0.00060781	#DIV/0!	0.515423188
TRBV7-8	0.005733945	0.011792453	0.016669531	0.017322595	2.90716618	1.468956086
TRBV7-9	0.052752294	0.045990566	0.043478261	0.037076432	0.824196597	0.80617473
TRBV9	0.032110092	0.058962264	0.036604228	0.051056071	1.139960229	0.865910956
TRBV12-4	0	0	0.000343702	0.000303905	#DIV/0!	#DIV/0!
TRBV12-3	0	0	0	0	#DIV/0!	#DIV/0!
TRBV6-3	0	0	0.000687403	0.000303905	#DIV/0!	#DIV/0!

Table 6.7: Average and median fractional prevalences of VJ rearrangements for additional PBMC Lymphotrack vs CapTCR-Seq samples

V-Gene	All-Average-PCR:Cap-TRBJ1	All-Average-PCR:Cap-TRBJ2	All-Median-PCR:Cap-TRBJ1	All-Median-PCR:Cap-TRBJ2
TRBV10-1	1.569012563	0.915124048	1.012787138	0.81366477
TRBV10-2	0.830746685	0.875106546	0.842821962	0.848612476
TRBV10-3	0.728405576	0.625660715	0.733746483	0.662329215
TRBV11-1	1.618932073	3.142681392	1.555009745	3.142681392
TRBV11-2	6.469982256	4.134256245	3.748648326	3.74289773
TRBV12-5	2.430232627	4.653737801	1.379078695	4.75021424
TRBV11-3	5.986613404	4.992050285	5.231542854	3.952339113
TRBV13	0.861616099	0.790391349	0.847717657	0.758963723
TRBV14	1.192555734	0.927743188	1.224031416	0.927156921
TRBV15	1.269645392	0.986183657	0.785463055	0.973189259
TRBV16	0.618141436	0.414309177	0.377219841	0.386567391
TRBV18	1.045276456	1.000162294	1.1154851	1.026323657
TRBV19	0.692972439	0.700583757	0.655403598	0.713107865
TRBV2	0.874361172	0.729507577	0.871475932	0.708221786
TRBV20-1	0.753112662	0.832906341	0.749039839	0.835955615
TRBV21-1	0.000960602	0.006841164	0	0
TRBV23-1	0.993385652	0.860746212	0.759042874	0.813279942
TRBV24-1	0.582354963	0.954672032	0.524389283	0.782133429
TRBV25-1	1.486635443	1.425355888	1.029155427	1.45330648
TRBV27	0.688211817	0.882757616	0.664636799	0.80071681
TRBV28	0.773256998	0.786813591	0.781815341	0.741074196
TRBV29-1	1.10577646	0.835694245	1.089947694	0.857436695
TRBV3-1	1.598455628	2.847939821	1.013778322	2.364614856
TRBV30	0.824998514	0.833303314	0.826425739	0.800599277
TRBV4-1	2.277847164	2.73465692	2.061573554	2.76905642
TRBV4-2	5.120631919	5.64271771	3.86540325	7.101078932
TRBV4-3	5.785119983	6.757441856	6.007317604	5.624064136
TRBV5-1	0.954000684	0.976604098	0.91411782	0.978741742
TRBV5-4	4.006711661	2.799955037	2.922999404	2.300886022
TRBV5-5	0.44956178	0.151637228	0.44956178	0.10734072
TRBV5-6	4.413779204	2.819859909	3.322062757	3.00208215
TRBV5-8	2.734854769	3.436739935	2.7458387	2.715750233
TRBV6-1	1.566121673	1.116437537	1.416851083	1.036047684
TRBV6-4	1.240262154	0.95504964	1.274534655	0.951363837
TRBV6-6	2.038678868	2.530575839	1.988188423	2.600197096
TRBV6-5	2.060341282	2.116863638	2.211040442	2.023699668
TRBV6-7	0.481949071	0.51064548	0.481949071	0.450995289
TRBV7-1	0	0	0	0
TRBV7-2	1.936389306	2.181237892	1.970799573	1.801771891

TRBV7-3	1.571235836	1.05413634	1.454554392	0.912276081
TRBV7-4	1.182428307	0.244156092	1.182428307	0.244156092
TRBV7-6	0.236053542	0.387732907	0.250040732	0.400272758
TRBV7-7	0.276823156	0.301918563	0.276823156	0.346394094
TRBV7-8	1.555709883	1.564807125	1.365846326	1.614896366
TRBV7-9	1.017250079	0.949014341	0.958027875	0.788960198
TRBV9	0.897071982	0.81257709	0.940793241	0.79797567
TRBV12-4	0	0	0	0
TRBV12-3	0	0	0	0
TRBV6-3	0	0	0	0

Table 7: Top 200 frequently observed clones across all samples (MiXCR/tcR)

CDR3.nucleotide.sequence	V.gene	People
TGCGCCAGCAGCCAAGACACAGCCTTGCAGAGTCACCGCTTTCCTGTGCAGAAACCTTC	TRBV4-1	95
TGTGCTCTAAGTGGCACAGTAGCTGGTTTT	TRAV16	93
TGTGCTCTAAGTGGCACAGTAGCTGGTTTTGCAAGGAAGCAGAACACAAACCCTTTAAATACAGGAAATATTTCTTT	TRAV16	92
TGTGCCAGCAGCTTAGGCACAGCCCTGGAGAATTACTGGCTTTCTGTACCCAAACCCTCCTATCTCACTTGAGGATGTAATAG	TRBV13	91
TGTGCTGTGAGAGACACGGTGACTATGAGGCCTCTTTAGCTGCACCAAAATTCAAAAGGCAACCACAGCAGCGAGAAGCTGTATTT	TRAV1-2	90
TGTGCCAGCAGTGAAGCCACAGCGCTGCATGGC	TRBV6-1	89
TGTGCTCTGAGTGAGGCCACAGTGAGATGGGTGCCTGTGGGAGCCCTACAAAAACCTCAACAAGAGGCAGGGCTCCTGGGGAGAGACTCTGTCACAGACAGGAAGAAGCAAGGAGGGTCTGTGTCAGCACAGGTGGTTT	TRAV19	89
TGTGCAGTGAGAACACAGAACTCTTCAGGCACCTGCAACCTGTACTCAAACCTGCAACTGGGAGTCCAGTCACATTCTTTGTCTTT	TRAV32	88
TGCGCCAGGGTCCCCAGGGCTGTGCGAACACCGGGGAGCTGTTTTTT	TRBV5-1	87
TGCGCTCTGAGAGACAGAGTGGGA	TRAV18	87
TGCGCTCTGAGAGACAGAGTGGGAGGGACTGCAGCGAGAGCCCAGCACAAACCCTGGGGAACGCAGGTGGGGCCTGGGTGTGAGCCGCTTT	TRAV18	87
TGTGCAGAGAATACACATTGCTTTCCAGGCATCTGTAACCATCACCCAAACCTGAGATGGGAGGTGAAGCAGCATCCCTTTCCTTT	TRAV13-2	87
TGTGCTGTGAGAGACACGGTGACTATGAGGCCTCTTTAGCTGCACCAAAATTCAAAAGGCAACCACAGCAGCGAGAAGCTGTATTTCCTGAGTGTATGCCTGCTGTGAGTTAAGACTGGGGACTTT	TRAV1-2	86
TGTGCTTATAGGAGCGCACAGTGAGACAAGCAACAGGGAGAGGCTTACAGAAACCTCAGACCTCAGCATCTGT	TRAV38-2DV8	86
TGTGCTTTGCAGTAGTGTCTCCCCAGCACCTGCAGCCTGTACCATAACCTGCAGCCGGGACCCTTGACACAGGCTAGCCTTGCAGGT	TRAV11	86
TGTGCTGGGCAGCACAGTGCTCCCCAAACACCTGCAGCCTGTACTCAAACTTGCAGCT	TRAV35	84
TGTGCTGTGAGAGACACACACTGATAGGGGCTGCAGGG	TRAV3	84
TGTGCTGTGGAGGACACAGAGGCAGGGAACCCATGAAGAGCTGAACAGAAACAGAGATCACAGCCTTTGCAGGAGGCAAAACAGAGATGAGCAATAACTTTT	TRAV2	84
TGTGTGGTGAACACACAGTGCTCCCCAGACACCTGCAGTCTGTACCCAAACCTGCTGGGCCCCAGGAATGCCTGATGTAGAGCTTAGACTGCAGGGCAGTAAAGTCCTCTTT	TRAV12-1	84
TGCATCGTCAGAGTCGCACACTGGGACAGATGGGGCTGCACCTGTGCAATATCTCCCTGGTGGCAAGTGAGGAGGAGGGTAGCATTCACCTAGAGCAAAATGTCGATAGGAGTCAAAAAGTAACAAGAAAAGA	TRAV26-1	83
TGTGCTCTGAGTGACACAGTGACAGGGACTGCAG	TRAV9-1	83
TGTGCTGGGCAGCACAGTGCTCCCCAAACACCTGCAGCCTGTACTCAAACTT	TRAV35	83
TGCATCCTGAGAGACCACAGT	TRAV26-2	82
TGTGCCGTGAATGCCACAGTGTCT	TRAV8-1	82
TATGCCTTCAATGTGATTTTCACCTTGACCCCTGTCACTGTGTGAACACTGAAGCTTTCTTT	TRBV26	81
TGTGCAGCAAGCGCACAGTGCTCTCCAGGCACCTGCAGCCCGTACTCAAACCTGCTTTGG	TRAV29DV5	81
TGTGCTGTGAGTGACACAGTGCCTGAGACTGCAGGAGAGCTGAACACAAACCTCCTGAGATGCTGAGACTTT	TRAV8-6	81
TGTGACAATAACAATGACATGCGCTTT	TRAV16	80
TGTGCCAGCAGCTTTGCCACAGCACTGCAGAATCTCCCCATCTCTGTGCAGAAACCCTGGTGCTTCCTCTTCTCCCCACAGCTCTCAGCAGTCGTCAGCAAAGTCTTTCCTGCTCTCTGCTCACCATGGCTCACGCCTATAATCCCAGCACTTT	TRBV12-1	80
TGTGTGAATAATAATGCAGGCAACATGCTCACCTTT	TRAV16	80
TGTTATGAAGCATCTCACAGTGTAAATACCGGCACTGCCAGTAAACTCACCTTT	TRAV31	79
TGTGCTGTGGAGGCACAGTGCTCCCTAGTCACCTGCAGCCTGTACTCAAATTCTACAGCTGAGGCTCTGCAACTGTAAGATGGGGAACTTGCTACATT	TRAV36DV7	78
TGTGCCTTTACACAGTGCTGTTCAGGCACCTGCAGCCCATACGCAAACCTGTGTCTGGTGTTGCACTGTTACCAGCATT	TRAV24	77
TGTGCTGGGCAGCACAGTGCTCCCCAAACACCTGCAGCCTGTACTCAAACTTGCAGCTGGAACTCTAGTCTCTATGCTGCCTTCAGCTCTTAGTCCTCTTGGCATGAAATGTGATTATGCATGCCACCTTT	TRAV35	77
TGCCTGGTTTTTGTTGAGCTTCCTATCACAGTGGAACACCGGTAACCAGTTCTATTTT	TRAV13-1	76

TGTGCTTTGAGGCACAGGGTCCCCAAGCACCTGCAGCCTGTACCACAACCTGCATCCGGGACCCTTGACACAGCCTTG CCTTGCAGGTGGGAGTGAAGGTGTTGTCTTT	TRAV15	76
TGTGGCTGTGAGAATAGTGGAGGTAGCAACTATAAACTGACATTT	TRAV3	76
TGCGCTGTGAGAGACACAGTGACTATGAGGCCTCCTTAACTGTGCCAAAATTCAAAAGACAATCAGTGGAGTACAGG TGGGCTTGAGAAGTTCTAGAACTTCCTGAGTGTATCTTT	TRAV1-1	75
TGTGCTGTGGGTGACAGGAGGACTGTGCCT	TRAV8-7	75
TGTGCTTTGAGGCACAGGGTCCCCAAGCACCTGCAGCCTGTACCACAACCTGCATCCGGGACCCTTGACACAGCCTTG CCTTGCAGGT	TRAV15	75
TGTGCCAGCAGCTTAACCACAGCATGACACAATCGCCTCCTTCCTGCTCATAAACCTCCTCCTCTCTCTCCTTGCTTCCTT ATGATACTATTTT	TRBV7-3	74
TGTGCAGCAAGTACACATTGCTTCCCAGGCACCTGCTACCCGTACACAAACCTGAGACTGGAGCTGAAGCTGCACCCC CTTTCCTTTGTCATAGATCGTCAATTATAGCATTTGTCATATTGTTTGTTT	TRAV13-1	73
TGTACAGAGTTATGTCAGAGTGTGAACACAGGCTTTCAGAAACTTGTATTT	TRAV13-2	72
TGTGCCTTTACACAGTGCTGTTCAGGCACCTGCAGCCCATACGCAAACCTGTGTCTGGTGTTGCACTGTTACCAGCATT GACAAAGAACCATGAGTAGGAT	TRAV24	72
TGTGCAGCAAGCGCACAGTGCTCTCCAGGCACCTGCAGCCCGTACTCAAACCTGCTTT	TRAV29DV5	71
TGTGCTGTAGATGCACAGTACTCCCTAGGCACCTGCAACCTGTATCCAAACATGCAGCTGGGTAGAAGTACCATAACA GAAGCATCAGCAATAGGGGCCCTGAGCCTGAGTAGACGTGAAGAACTAAGGCATGAGTATGACCAGAGAGG	TRAV7	71
TGTGCTGTGCAGGCACAGCGTTCCCCAGGCACCTGCAACTTGTATCAAAACCCTGCAGCTGAGGATCTGAAATGATG GCAGAGGTATCTCTGCTGTTCTTCCTCTTGAAGGAGTATTTATTTAATGCCCAGGACCTTTTTCCAAATGGTCCTTT	TRAV20	71
TTTGCTCTAGACTTTTTGTCTGGGCTTTGTCTCTAATAGGATCCCCGGAAGGACAGTGAAGGTTTTTGTTAAGGTTTTT GTGTCTGTGTGGATAGCAACTATCAGTTAATCTGG	TRAV6	71
TGTGCAATGAGCGCACAGTGCTCCCCAGACACTTGCAGTCTGTACCCAAACCTGCTGGGCCCCAGGAATGCCTGATGT AGAGCTTAGACTGCAAGGCAATGAAGTTCTATTTGTTCTCTAGATGCAAATGAAAACTAAAAGCAGTAGTATTGAAG GTTTGATTAATTT	TRAV12-3	70
TGTGCCAGCTCACCACCCACATTGATGCAGAGCCACATCCTCTCAGTCCACAAACATCCTCCAGACCTGCCTTGGAAAC AGCGGT	TRBV18	70
TGCTGTGGGAATAACAATGCCAGACTCATGTTT	TRAV28	69
TGTGACTACCTCAGGAACCTACAAATACATCTTT	TRAV24	69
TGTGATACTCACGGGAGGAGGAAACAAACTCACCTTT	TRAV34	69
TGTGCTTTGCTCTAGACTTTTTGTCTGGGCTTTGTCTCTAATAGGATCCCCGGAAGGACAGTGAAGGTTTTTGTTAAGG TTTTTGTGTCTGTGTGGATAGCAACTATCAGTTAATCTGG	TRAV11	69
TGGGAAGCAATGTGTACTTGCTGCACAGAAGTAGACAGCCGAGTCTTCAGGTTGGGTCTCTGTGATGTGCAGGGAGA AATGTTT	TRAV13-1	68
TGTGCAGCAAGTACACATTGCTTCCCAGGCACCTGCTACCCGTACACAAACCTGAGACTGGAGCTGAAGCTGCACCCC CTTTCCTTTGTCATAGATCGTCAATTATAGCATTTGTCATATTGTTTGTTTGCAAGTTGAAACTAACATATTGACATTT	TRAV13-1	68
TATGCTGTGAGTGGTCTGATTTTCTCAGCATCTCTGGGGTTTTTGCAAAGAAAGGAAACTCTGTGCATACTCTGGGGC TGGGAGTTACCAACTCACTTTC	TRAV8-4	65
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	TRBV5-5,	
	TRBV5-6,	
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TGTGCCAGCAGCTTAGCCACAGTGTGGCATAGTCGCCTCCTTCCTGTTCACAAACCTCATCCTTCTCTCTCCTTGCACCT CCTAGAGACCCTTAACAGAGGCCTCTCTTTGCTCCTCACTTTTGATGGGAAAGAAGTAGATTT	TRBV7-6	13
TGTGGAGCAGACACACAGCGATCTTCAGGCCTCTATCAGCTGTCTCCAAACCTGCAGCTGGGCCACATATGCTCTTCT GACATGGGGCTCCTGAGATGTGGCTGGGACTTTTGCCAAGACATGAAGTCTCAGAACGTTGCAATTGTCTTATT	TRAV34	13
TGTGTGGTGCCATGGATAGCAACTATCAGTTAATCTGG	TRAV12-1	13
TGCGCCAGCAGCTGGACCAGGGGTATAGATGGCTACACCTTC	TRBV5-1	12
TGTGCAATGACCCTCGGGGTCCAGGCAGGAACTGCTCTGATCTTT	TRAV12-3	12

TGTGCAGCACTGTGGAGTCACTGCTGGCACAGAAGTACACAGATGTCTGAGAGGGTACAGCAGACGCCAACGTGAG GGGGAAATCATCTGTGTTTGCTCTGGAGACACTATAACCATCAGGGACTTCTCCTTT	TRBV6-4	12
TGTGCCACCTGGGATTATTATAAGAAACTCTTT	TRGV8	12
TGTGCCATGCTGTGGCTAAGCTGCTGGCACAGAGATACACGGCCGAGTCCTCCTGCTGTGTGCGCTGGATCGTCAGA GTGGAGACGGATCCCCCAGTCCTCTCTGCAGAGAAGCGATCACTGGGCAGCCCTGATTTGTCTGGTGCACTGTTGCCT TGGAAGTAAATTAAAAACTCC	TRBV5-4, TRBV5-5, TRBV5-6, TRBV5-7, TRBV5-8	12
TGTGCCTTTAGCACTATGATGCAGGTGCCCAGGAAGTCATAACACAAACTCCTGGGGCACAGCTCAGCAGAGCTGCC TCTTAGGGCAGGTCATGTCTGGGACTTGGCATCCTTCTCTTAGCCATTTT	TRAV24	12

Table 8: VJ rearrangements called by MIXCR for A037 fragments collected by Lymphotrack PCR and CapTCR-Seq (merged data set from all 17 A037 runs)

V.gene	J.gene	Count.A037.PCR	Prop.A037.PCR	Prop.All.A037.Cap
TRBV3-1	TRBJ1-1	4382	0.029304	0.000396
TRBV20-1	TRBJ2-7	2788	0.018644	0.017509
TRBV14	TRBJ2-7	2422	0.016197	0.001486
TRBV3-1	TRBJ2-7	2374	0.015876	0.001739
TRBV9	TRBJ1-1	2134	0.014271	0.004451
TRBV20-1	TRBJ1-1	1726	0.011542	0.010284
TRBV14	TRBJ1-2	1724	0.011529	0.000928
TRBV3-1	TRBJ1-5	1526	0.010205	0.004118
TRBV2	TRBJ1-2	1421	0.009503	0.003606
TRBV14	TRBJ1-1	1352	0.009041	0.000180
TRBV4-3	TRBJ1-1	1324	0.008854	0.000032
TRBV4-1	TRBJ2-7	1273	0.008513	0.004001
TRBV3-1	TRBJ1-2	1272	0.008506	0.000673
TRBV20-1	TRBJ1-2	1269	0.008486	0.006584
TRBV20-1	TRBJ2-1	1177	0.007871	0.012874
TRBV18	TRBJ2-7	1143	0.007644	0.003620
TRBV6-1	TRBJ2-7	1132	0.007570	0.015143
TRBV7-9	TRBJ2-7	1104	0.007383	0.003763
TRBV9	TRBJ2-7	1095	0.007323	0.003137
TRBV28	TRBJ2-7	1080	0.007222	0.009226
TRBV2	TRBJ1-5	1076	0.007195	0.001819
TRBV6-5	TRBJ2-7	1055	0.007055	0.003173
TRBV2	TRBJ2-7	1007	0.006734	0.003157
TRBV2	TRBJ1-1	999	0.006681	0.005145
TRBV7-9	TRBJ1-1	981	0.006560	0.010471
TRBV9	TRBJ2-1	957	0.006400	0.005073
TRBV14	TRBJ2-1	957	0.006400	0.001684
TRBV6-4	TRBJ2-2	894	0.005978	0.002863
TRBV20-1	TRBJ1-6	887	0.005932	0.008293
TRBV4-1	TRBJ1-1	867	0.005798	0.000889
TRBV4-3	TRBJ2-7	831	0.005557	0.000480
TRBV7-2	TRBJ2-7	808	0.005403	0.003042
TRBV4-3	TRBJ1-2	803	0.005370	0.000069
TRBV4-2	TRBJ2-7	798	0.005336	0.000064
TRBV20-1	TRBJ2-5	776	0.005189	0.005283
TRBV20-1	TRBJ1-5	749	0.005009	0.006732
TRBV6-4	TRBJ2-7	724	0.004842	0.001778
TRBV7-9	TRBJ1-2	722	0.004828	0.002292
TRBV6-5	TRBJ1-1	719	0.004808	0.000711

TRBV3-1	TRBJ2-1	715	0.004781	0.003440
TRBV9	TRBJ1-2	703	0.004701	0.001935
TRBV7-8	TRBJ2-7	689	0.004608	0.001403
TRBV6-4	TRBJ1-5	680	0.004547	0.000371
TRBV11-2	TRBJ2-7	652	0.004360	0.000566
TRBV20-1	TRBJ2-3	648	0.004333	0.021528
TRBV4-1	TRBJ1-2	641	0.004287	0.001876
TRBV18	TRBJ1-1	636	0.004253	0.003300
TRBV5-1	TRBJ2-7	631	0.004220	0.004290
TRBV5-1	TRBJ1-2	613	0.004099	0.008171
TRBV15	TRBJ2-7	613	0.004099	0.000977
TRBV6-4	TRBJ2-1	603	0.004032	0.001786
TRBV29-1	TRBJ1-1	597	0.003992	0.002848
TRBV9	TRBJ2-3	585	0.003912	0.006439
TRBV7-2	TRBJ1-2	584	0.003905	0.005009
TRBV28	TRBJ1-1	573	0.003832	0.002908
TRBV6-5	TRBJ1-2	556	0.003718	0.002834
TRBV4-2	TRBJ1-2	538	0.003598	0.001976
TRBV2	TRBJ2-1	529	0.003538	0.005215
TRBV29-1	TRBJ2-7	529	0.003538	0.003695
TRBV6-4	TRBJ1-1	527	0.003524	0.001009
TRBV7-2	TRBJ2-1	515	0.003444	0.001440
TRBV11-2	TRBJ1-1	510	0.003411	0.000411
TRBV6-4	TRBJ2-3	507	0.003390	0.003505
TRBV7-3	TRBJ1-1	503	0.003364	0.000774
TRBV6-4	TRBJ1-2	491	0.003283	0.001884
TRBV28	TRBJ1-2	485	0.003243	0.001589
TRBV19	TRBJ2-7	481	0.003217	0.009738
TRBV3-1	TRBJ2-3	481	0.003217	0.000448
TRBV20-1	TRBJ1-4	471	0.003150	0.005206
TRBV27	TRBJ2-7	460	0.003076	0.006600
TRBV7-2	TRBJ1-1	447	0.002989	0.006537
TRBV2	TRBJ2-5	443	0.002962	0.001756
TRBV7-2	TRBJ1-5	439	0.002936	0.000724
TRBV20-1	TRBJ2-2	433	0.002896	0.002984
TRBV2	TRBJ1-4	415	0.002775	0.002470
TRBV9	TRBJ1-5	406	0.002715	0.001708
TRBV15	TRBJ1-2	403	0.002695	0.001468
TRBV7-3	TRBJ2-7	401	0.002682	0.003361
TRBV15	TRBJ1-5	400	0.002675	0.001271
TRBV14	TRBJ2-2	391	0.002615	0.000761
TRBV5-1	TRBJ1-1	384	0.002568	0.001606
TRBV3-1	TRBJ2-5	380	0.002541	0.000684

TRBV6-1	TRBJ1-1	379	0.002534	0.004070
TRBV4-2	TRBJ1-5	376	0.002514	0.000000
TRBV7-3	TRBJ2-1	372	0.002488	0.002310
TRBV19	TRBJ1-1	371	0.002481	0.005632
TRBV13	TRBJ2-7	366	0.002448	0.002993
TRBV18	TRBJ1-2	359	0.002401	0.001258
TRBV4-1	TRBJ1-4	359	0.002401	0.001241
TRBV4-2	TRBJ2-1	358	0.002394	0.000371
TRBV2	TRBJ2-2	357	0.002387	0.000633
TRBV4-3	TRBJ2-1	351	0.002347	0.000000
TRBV6-5	TRBJ2-1	349	0.002334	0.002428
TRBV9	TRBJ1-4	348	0.002327	0.001000
TRBV6-5	TRBJ1-5	348	0.002327	0.000620
TRBV4-1	TRBJ2-1	345	0.002307	0.002669
TRBV11-2	TRBJ1-2	342	0.002287	0.000361
TRBV4-1	TRBJ1-5	340	0.002274	0.001254
TRBV4-2	TRBJ1-1	338	0.002260	0.000064
TRBV9	TRBJ2-2	326	0.002180	0.001385
TRBV14	TRBJ1-4	325	0.002173	0.000000
TRBV4-1	TRBJ2-2	322	0.002153	0.001901
TRBV4-3	TRBJ2-3	322	0.002153	0.000036
TRBV7-9	TRBJ1-5	316	0.002113	0.001446
TRBV29-1	TRBJ1-5	310	0.002073	0.002242
TRBV6-6	TRBJ2-7	306	0.002046	0.003808
TRBV6-6	TRBJ1-1	304	0.002033	0.000365
TRBV12-5	TRBJ1-1	304	0.002033	0.000000
TRBV6-4	TRBJ2-5	292	0.001953	0.000411
TRBV5-8	TRBJ2-1	292	0.001953	0.000404
TRBV7-9	TRBJ2-1	291	0.001946	0.009035
TRBV5-6	TRBJ2-7	282	0.001886	0.000113
TRBV9	TRBJ2-5	281	0.001879	0.002648
TRBV2	TRBJ2-3	281	0.001879	0.002335
TRBV5-4	TRBJ2-7	280	0.001872	0.002052
TRBV15	TRBJ2-1	279	0.001866	0.002272
TRBV5-8	TRBJ1-4	279	0.001866	0.000032
TRBV4-2	TRBJ2-2	278	0.001859	0.000064
TRBV11-2	TRBJ2-1	275	0.001839	0.000115
TRBV28	TRBJ1-5	263	0.001759	0.002472
TRBV30	TRBJ2-7	262	0.001752	0.002316
TRBV7-8	TRBJ1-1	262	0.001752	0.000738
TRBV27	TRBJ1-5	254	0.001699	0.001662
TRBV4-1	TRBJ2-3	254	0.001699	0.001270
TRBV27	TRBJ1-2	253	0.001692	0.002777

TRBV14	TRBJ2-3	249	0.001665	0.001372
TRBV27	TRBJ1-1	245	0.001638	0.003937
TRBV29-1	TRBJ1-2	243	0.001625	0.002870
TRBV29-1	TRBJ2-1	243	0.001625	0.001536
TRBV7-2	TRBJ2-5	240	0.001605	0.003002
TRBV4-3	TRBJ1-6	240	0.001605	0.000000
TRBV5-8	TRBJ1-2	237	0.001585	0.000000
TRBV4-2	TRBJ2-3	233	0.001558	0.000245
TRBV7-9	TRBJ2-3	231	0.001545	0.004514
TRBV4-3	TRBJ1-5	231	0.001545	0.000000
TRBV19	TRBJ2-2	229	0.001531	0.002130
TRBV4-2	TRBJ1-4	227	0.001518	0.000000
TRBV28	TRBJ2-1	225	0.001505	0.004557
TRBV11-3	TRBJ2-1	222	0.001485	0.005390
TRBV6-6	TRBJ2-1	222	0.001485	0.002532
TRBV15	TRBJ2-3	222	0.001485	0.002198
TRBV18	TRBJ1-5	220	0.001471	0.001213
TRBV25-1	TRBJ1-1	219	0.001465	0.001140
TRBV5-1	TRBJ2-5	218	0.001458	0.002663
TRBV7-3	TRBJ1-2	218	0.001458	0.000227
TRBV12-5	TRBJ1-2	217	0.001451	0.000136
TRBV7-2	TRBJ2-3	210	0.001404	0.007456
TRBV3-1	TRBJ1-4	210	0.001404	0.000296
TRBV2	TRBJ1-6	209	0.001398	0.000993
TRBV4-1	TRBJ2-5	209	0.001398	0.000794
TRBV14	TRBJ2-5	209	0.001398	0.000353
TRBV6-5	TRBJ2-5	208	0.001391	0.001399
TRBV7-9	TRBJ2-2	208	0.001391	0.000551
TRBV6-5	TRBJ2-3	205	0.001371	0.000772
TRBV19	TRBJ1-2	204	0.001364	0.002810
TRBV12-5	TRBJ2-7	203	0.001358	0.001462
TRBV10-3	TRBJ2-7	202	0.001351	0.001097
TRBV6-1	TRBJ1-2	201	0.001344	0.001786
TRBV7-3	TRBJ2-3	200	0.001337	0.002411
TRBV19	TRBJ2-1	198	0.001324	0.003878
TRBV4-2	TRBJ2-5	197	0.001317	0.000257
TRBV29-1	TRBJ2-3	195	0.001304	0.000352
TRBV7-3	TRBJ2-2	194	0.001297	0.001992
TRBV7-9	TRBJ1-4	189	0.001264	0.000256
TRBV5-4	TRBJ1-2	187	0.001251	0.001454
TRBV6-5	TRBJ2-2	187	0.001251	0.000261
TRBV15	TRBJ1-4	183	0.001224	0.000217
TRBV13	TRBJ1-1	182	0.001217	0.000144

TRBV3-1	TRBJ1-3	181	0.001210	0.000000
TRBV4-3	TRBJ1-3	180	0.001204	0.001277
TRBV7-8	TRBJ1-5	178	0.001190	0.000765
TRBV5-3	TRBJ1-4	177	0.001184	0.004953
TRBV25-1	TRBJ1-2	175	0.001170	0.000450
TRBV19	TRBJ1-5	172	0.001150	0.004812
TRBV29-1	TRBJ2-5	170	0.001137	0.000930
TRBV24-1	TRBJ1-1	169	0.001130	0.001243
TRBV6-4	TRBJ1-4	169	0.001130	0.001207
TRBV6-4	TRBJ2-6	169	0.001130	0.000850
TRBV10-1	TRBJ2-7	168	0.001123	0.000879
TRBV7-9	TRBJ2-5	164	0.001097	0.001274
TRBV11-3	TRBJ1-1	164	0.001097	0.000032
TRBV23-1	TRBJ2-7	159	0.001063	0.000740
TRBV7-2	TRBJ2-2	158	0.001057	0.002693
TRBV2	TRBJ1-3	157	0.001050	0.000397
TRBV15	TRBJ1-1	157	0.001050	0.000100
TRBV7-8	TRBJ1-3	156	0.001043	0.001272
TRBV6-6	TRBJ1-5	156	0.001043	0.001002
TRBV5-1	TRBJ2-3	154	0.001030	0.002081
TRBV5-8	TRBJ1-5	154	0.001030	0.000000
TRBV11-3	TRBJ2-2	153	0.001023	0.001025
TRBV5-6	TRBJ1-1	153	0.001023	0.000610
TRBV15	TRBJ1-6	153	0.001023	0.000291
TRBV7-4	TRBJ2-7	153	0.001023	0.000016
TRBV25-1	TRBJ2-7	152	0.001016	0.000373
TRBV4-2	TRBJ1-3	150	0.001003	0.000000
TRBV6-5	TRBJ1-3	149	0.000996	0.000854
TRBV5-4	TRBJ1-1	149	0.000996	0.000395
TRBV5-4	TRBJ2-1	146	0.000976	0.001342
TRBV6-1	TRBJ2-1	145	0.000970	0.008441
TRBV5-6	TRBJ2-1	143	0.000956	0.000575
TRBV10-3	TRBJ1-5	142	0.000950	0.001031
TRBV11-2	TRBJ2-3	141	0.000943	0.000032
TRBV6-1	TRBJ1-5	140	0.000936	0.001347
TRBV18	TRBJ2-1	139	0.000930	0.003559
TRBV11-3	TRBJ2-7	136	0.000909	0.000865
TRBV18	TRBJ2-5	135	0.000903	0.001338
TRBV6-6	TRBJ1-2	134	0.000896	0.000048
TRBV19	TRBJ1-4	130	0.000869	0.001868
TRBV18	TRBJ1-4	130	0.000869	0.001151
TRBV18	TRBJ2-2	130	0.000869	0.000977
TRBV7-3	TRBJ1-5	128	0.000856	0.000122

TRBV11-2	TRBJ1-4	128	0.000856	0.000000
TRBV7-8	TRBJ1-2	127	0.000849	0.000154
TRBV25-1	TRBJ1-5	126	0.000843	0.000935
TRBV10-3	TRBJ1-1	125	0.000836	0.001663
TRBV7-8	TRBJ2-1	125	0.000836	0.001618
TRBV25-1	TRBJ2-1	123	0.000823	0.001317
TRBV12-5	TRBJ1-5	123	0.000823	0.000016
TRBV6-5	TRBJ1-6	122	0.000816	0.000272
TRBV28	TRBJ2-5	121	0.000809	0.000790
TRBV9	TRBJ2-6	121	0.000809	0.000618
TRBV15	TRBJ2-5	120	0.000802	0.000249
TRBV5-6	TRBJ1-2	119	0.000796	0.002389
TRBV7-3	TRBJ2-5	119	0.000796	0.002288
TRBV30	TRBJ1-5	118	0.000789	0.001115
TRBV20-1	TRBJ1-3	117	0.000782	0.001713
TRBV5-1	TRBJ1-4	117	0.000782	0.000993
TRBV18	TRBJ1-3	116	0.000776	0.000642
TRBV10-3	TRBJ1-2	116	0.000776	0.000456
TRBV27	TRBJ2-2	114	0.000762	0.001956
TRBV28	TRBJ2-3	114	0.000762	0.000935
TRBV5-8	TRBJ1-1	114	0.000762	0.000100
TRBV12-5	TRBJ2-5	112	0.000749	0.000000
TRBV6-1	TRBJ1-4	111	0.000742	0.000801
TRBV13	TRBJ1-2	111	0.000742	0.000601
TRBV14	TRBJ2-6	111	0.000742	0.000036
TRBV4-3	TRBJ2-2	111	0.000742	0.000000
TRBV11-2	TRBJ2-5	110	0.000736	0.000240
TRBV18	TRBJ2-3	109	0.000729	0.002254
TRBV28	TRBJ2-2	109	0.000729	0.001550
TRBV6-1	TRBJ2-3	109	0.000729	0.001548
TRBV29-1	TRBJ2-2	109	0.000729	0.000612
TRBV9	TRBJ1-6	109	0.000729	0.000599
TRBV5-4	TRBJ2-3	107	0.000716	0.000592
TRBV5-1	TRBJ2-1	104	0.000695	0.005116
TRBV7-2	TRBJ1-6	104	0.000695	0.000692
TRBV27	TRBJ2-1	103	0.000689	0.002539
TRBV29-1	TRBJ1-4	103	0.000689	0.000199
TRBV6-4	TRBJ1-6	102	0.000682	0.001585
TRBV3-1	TRBJ2-4	102	0.000682	0.000000
TRBV7-3	TRBJ1-6	101	0.000675	0.002202
TRBV28	TRBJ1-3	100	0.000669	0.000617
TRBV4-1	TRBJ1-6	100	0.000669	0.000048
TRBV11-2	TRBJ1-5	97	0.000649	0.000891

TRBV25-1	TRBJ1-6	97	0.000649	0.000330
TRBV12-5	TRBJ2-2	97	0.000649	0.000036
TRBV11-3	TRBJ2-3	97	0.000649	0.000000
TRBV7-8	TRBJ2-2	96	0.000642	0.000160
TRBV5-1	TRBJ1-5	95	0.000635	0.000942
TRBV9	TRBJ1-3	95	0.000635	0.000834
TRBV18	TRBJ1-6	95	0.000635	0.000548
TRBV13	TRBJ1-5	94	0.000629	0.000000
TRBV20-1	TRBJ2-4	93	0.000622	0.000910
TRBV12-5	TRBJ1-4	92	0.000615	0.000036
TRBV6-1	TRBJ2-5	91	0.000609	0.000766
TRBV10-1	TRBJ2-1	90	0.000602	0.000680
TRBV5-4	TRBJ1-4	90	0.000602	0.000212
TRBV4-1	TRBJ1-3	90	0.000602	0.000000
TRBV12-5	TRBJ2-1	89	0.000595	0.000096
TRBV6-5	TRBJ2-6	88	0.000588	0.000147
TRBV25-1	TRBJ2-2	87	0.000582	0.000104
TRBV24-1	TRBJ1-2	86	0.000575	0.002252
TRBV5-8	TRBJ2-5	86	0.000575	0.000048
TRBV27	TRBJ2-3	85	0.000568	0.002872
TRBV14	TRBJ1-3	85	0.000568	0.000731
TRBV19	TRBJ2-5	84	0.000562	0.003521
TRBV20-1	TRBJ2-6	84	0.000562	0.000374
TRBV10-1	TRBJ1-2	83	0.000555	0.000379
TRBV5-6	TRBJ2-5	82	0.000548	0.000032
TRBV30	TRBJ1-2	81	0.000542	0.001014
TRBV10-3	TRBJ2-5	80	0.000535	0.001102
TRBV30	TRBJ1-1	78	0.000522	0.000610
TRBV10-1	TRBJ1-1	78	0.000522	0.000479
TRBV24-1	TRBJ2-7	76	0.000508	0.000808
TRBV11-1	TRBJ2-1	75	0.000502	0.000072
TRBV24-1	TRBJ1-5	74	0.000495	0.000447
TRBV10-3	TRBJ2-1	73	0.000488	0.001149
TRBV7-8	TRBJ1-6	72	0.000481	0.000531
TRBV10-2	TRBJ1-1	72	0.000481	0.000372
TRBV7-4	TRBJ1-2	72	0.000481	0.000080
TRBV13	TRBJ1-4	71	0.000475	0.000099
TRBV11-3	TRBJ2-5	71	0.000475	0.000000
TRBV7-9	TRBJ1-3	70	0.000468	0.003052
TRBV6-6	TRBJ2-3	70	0.000468	0.000281
TRBV7-3	TRBJ2-6	70	0.000468	0.000048
TRBV7-9	TRBJ1-6	68	0.000455	0.001893
TRBV24-1	TRBJ2-1	67	0.000448	0.001312

TRBV15	TRBJ2-4	67	0.000448	0.000681
TRBV23-1	TRBJ1-6	67	0.000448	0.000626
TRBV23-1	TRBJ1-5	66	0.000441	0.000397
TRBV30	TRBJ2-1	66	0.000441	0.000280
TRBV6-8	TRBJ2-7	65	0.000435	0.000872
TRBV5-8	TRBJ2-2	65	0.000435	0.000000
TRBV11-2	TRBJ1-6	64	0.000428	0.000072
TRBV24-1	TRBJ2-2	63	0.000421	0.001334
TRBV6-6	TRBJ2-2	63	0.000421	0.000000
TRBV13	TRBJ2-5	62	0.000415	0.000885
TRBV5-8	TRBJ2-7	62	0.000415	0.000222
TRBV7-4	TRBJ2-3	62	0.000415	0.000099
TRBV5-6	TRBJ1-5	62	0.000415	0.000072
TRBV11-2	TRBJ2-2	62	0.000415	0.000032
TRBV2	TRBJ2-6	61	0.000408	0.000927
TRBV7-2	TRBJ1-4	60	0.000401	0.000523
TRBV25-1	TRBJ2-3	59	0.000395	0.001009
TRBV5-8	TRBJ2-3	59	0.000395	0.000223
TRBV5-1	TRBJ1-3	59	0.000395	0.000165
TRBV11-1	TRBJ2-7	59	0.000395	0.000138
TRBV6-4	TRBJ1-3	59	0.000395	0.000029
TRBV19	TRBJ2-3	58	0.000388	0.002347
TRBV23-1	TRBJ1-2	57	0.000381	0.000196
TRBV11-1	TRBJ1-1	57	0.000381	0.000048
TRBV5-4	TRBJ1-6	57	0.000381	0.000032
TRBV10-1	TRBJ2-5	56	0.000374	0.001244
TRBV6-5	TRBJ1-4	56	0.000374	0.000903
TRBV15	TRBJ2-2	56	0.000374	0.000129
TRBV28	TRBJ2-6	55	0.000368	0.000400
TRBV5-4	TRBJ1-5	55	0.000368	0.000016
TRBV27	TRBJ2-5	54	0.000361	0.000440
TRBV7-8	TRBJ2-5	53	0.000354	0.000609
TRBV4-1	TRBJ2-6	53	0.000354	0.000128
TRBV10-2	TRBJ2-2	52	0.000348	0.001740
TRBV19	TRBJ1-3	52	0.000348	0.001198
TRBV10-3	TRBJ2-2	52	0.000348	0.001039
TRBV4-3	TRBJ2-6	52	0.000348	0.000375
TRBV6-7	TRBJ2-7	52	0.000348	0.000144
TRBV4-3	TRBJ1-4	52	0.000348	0.000000
TRBV27	TRBJ1-4	51	0.000341	0.000673
TRBV5-4	TRBJ2-5	51	0.000341	0.000084
TRBV28	TRBJ1-4	50	0.000334	0.001543
TRBV6-1	TRBJ2-2	50	0.000334	0.000616

TRBV7-8	TRBJ2-3	49	0.000328	0.001702
TRBV13	TRBJ2-1	49	0.000328	0.001134
TRBV5-3	TRBJ2-7	49	0.000328	0.000913
TRBV13	TRBJ2-3	49	0.000328	0.000756
TRBV5-1	TRBJ2-2	49	0.000328	0.000651
TRBV30	TRBJ2-5	49	0.000328	0.000112
TRBV18	TRBJ2-6	48	0.000321	0.000443
TRBV7-8	TRBJ1-4	48	0.000321	0.000365
TRBV12-5	TRBJ2-3	47	0.000314	0.000956
TRBV30	TRBJ1-3	47	0.000314	0.000540
TRBV16	TRBJ1-2	47	0.000314	0.000032
TRBV6-1	TRBJ2-6	44	0.000294	0.000000
TRBV6-8	TRBJ2-5	44	0.000294	0.000000
TRBV24-1	TRBJ2-5	43	0.000288	0.001429
TRBV25-1	TRBJ2-5	43	0.000288	0.000879
TRBV4-2	TRBJ1-6	43	0.000288	0.000064
TRBV6-4	TRBJ2-4	43	0.000288	0.000000
TRBV5-6	TRBJ2-3	42	0.000281	0.000256
TRBV23-1	TRBJ1-1	42	0.000281	0.000131
TRBV7-3	TRBJ1-3	42	0.000281	0.000106
TRBV5-6	TRBJ2-2	42	0.000281	0.000064
TRBV10-2	TRBJ2-7	41	0.000274	0.004487
TRBV14	TRBJ2-4	41	0.000274	0.000000
TRBV19	TRBJ1-6	40	0.000267	0.000568
TRBV3-1	TRBJ1-6	40	0.000267	0.000104
TRBV10-3	TRBJ2-3	39	0.000261	0.000712
TRBV4-3	TRBJ2-5	39	0.000261	0.000099
TRBV11-1	TRBJ1-2	38	0.000254	0.000032
TRBV16	TRBJ1-1	38	0.000254	0.000000
TRBV6-6	TRBJ1-6	38	0.000254	0.000000
TRBV6-7	TRBJ2-2	37	0.000247	0.001408
TRBV6-6	TRBJ1-3	37	0.000247	0.000077
TRBV19	TRBJ2-6	36	0.000241	0.000742
TRBV27	TRBJ1-6	35	0.000234	0.000894
TRBV6-1	TRBJ1-3	34	0.000227	0.000298
TRBV5-3	TRBJ1-2	34	0.000227	0.000298
TRBV7-6	TRBJ2-3	34	0.000227	0.000000
TRBV24-1	TRBJ2-3	33	0.000221	0.001781
TRBV5-1	TRBJ2-6	33	0.000221	0.000233
TRBV7-2	TRBJ2-6	33	0.000221	0.000000
TRBV30	TRBJ2-2	32	0.000214	0.000417
TRBV23-1	TRBJ2-5	32	0.000214	0.000096
TRBV6-6	TRBJ2-5	31	0.000207	0.000000

TRBV30	TRBJ2-3	30	0.000201	0.000905
TRBV29-1	TRBJ2-6	30	0.000201	0.000335
TRBV12-5	TRBJ1-6	30	0.000201	0.000000
TRBV30	TRBJ1-4	29	0.000194	0.005564
TRBV29-1	TRBJ1-3	29	0.000194	0.001851
TRBV5-4	TRBJ1-3	29	0.000194	0.000639
TRBV10-1	TRBJ2-2	29	0.000194	0.000437
TRBV11-1	TRBJ2-5	29	0.000194	0.000000
TRBV6-6	TRBJ2-6	29	0.000194	0.000000
TRBV25-1	TRBJ1-4	28	0.000187	0.000188
TRBV10-3	TRBJ1-3	28	0.000187	0.000109
TRBV11-1	TRBJ2-2	28	0.000187	0.000064
TRBV6-9	TRBJ2-7	28	0.000187	0.000000
TRBV29-1	TRBJ2-4	27	0.000181	0.001031
TRBV25-1	TRBJ1-3	27	0.000181	0.000163
TRBV23-1	TRBJ2-1	27	0.000181	0.000124
TRBV24-1	TRBJ1-4	26	0.000174	0.000493
TRBV11-2	TRBJ1-3	26	0.000174	0.000283
TRBV13	TRBJ2-6	26	0.000174	0.000032
TRBV10-3	TRBJ1-6	25	0.000167	0.000156
TRBV10-2	TRBJ2-1	25	0.000167	0.000000
TRBV11-3	TRBJ1-5	25	0.000167	0.000000
TRBV11-3	TRBJ2-4	25	0.000167	0.000000
TRBV15	TRBJ2-6	25	0.000167	0.000000
TRBV6-9	TRBJ1-1	24	0.000160	0.000000
TRBV5-1	TRBJ1-6	23	0.000154	0.001063
TRBV25-1	TRBJ2-6	23	0.000154	0.000976
TRBV6-6	TRBJ1-4	23	0.000154	0.000208
TRBV11-3	TRBJ1-3	23	0.000154	0.000000
TRBV23-1	TRBJ1-3	23	0.000154	0.000000
TRBV13	TRBJ1-6	22	0.000147	0.000465
TRBV10-1	TRBJ1-3	22	0.000147	0.000216
TRBV7-4	TRBJ2-1	22	0.000147	0.000000
TRBV28	TRBJ1-6	21	0.000140	0.000793
TRBV10-1	TRBJ1-5	21	0.000140	0.000258
TRBV7-6	TRBJ2-7	21	0.000140	0.000193
TRBV7-4	TRBJ2-2	21	0.000140	0.000000
TRBV27	TRBJ2-4	20	0.000134	0.000080
TRBV10-2	TRBJ2-3	20	0.000134	0.000000
TRBV11-3	TRBJ2-6	20	0.000134	0.000000
TRBV5-6	TRBJ1-3	20	0.000134	0.000000
TRBV6-7	TRBJ1-1	20	0.000134	0.000000
TRBV6-1	TRBJ1-6	19	0.000127	0.000057

TRBV5-4	TRBJ2-2	18	0.000120	0.000404
TRBV24-1	TRBJ2-6	18	0.000120	0.000364
TRBV7-9	TRBJ2-6	18	0.000120	0.000179
TRBV6-9	TRBJ2-5	18	0.000120	0.000108
TRBV7-6	TRBJ2-1	18	0.000120	0.000029
TRBV6-5	TRBJ2-4	18	0.000120	0.000000
TRBV27	TRBJ2-6	17	0.000114	0.001568
TRBV7-9	TRBJ2-4	17	0.000114	0.001231
TRBV2	TRBJ2-4	17	0.000114	0.000698
TRBV24-1	TRBJ1-6	16	0.000107	0.003797
TRBV12-5	TRBJ2-4	16	0.000107	0.000315
TRBV4-1	TRBJ2-4	16	0.000107	0.000000
TRBV13	TRBJ2-2	15	0.000100	0.000284
TRBV10-2	TRBJ1-2	15	0.000100	0.000080
TRBV23-1	TRBJ1-4	15	0.000100	0.000045
TRBV6-8	TRBJ1-4	15	0.000100	0.000032
TRBV11-1	TRBJ2-3	15	0.000100	0.000000
TRBV6-9	TRBJ1-3	15	0.000100	0.000000
TRBV7-6	TRBJ1-2	15	0.000100	0.000000
TRBV5-1	TRBJ2-4	14	0.000094	0.001355
TRBV13	TRBJ1-3	14	0.000094	0.000132
TRBV7-6	TRBJ2-2	14	0.000094	0.000096
TRBV5-4	TRBJ2-6	14	0.000094	0.000016
TRBV11-1	TRBJ1-6	14	0.000094	0.000000
TRBV5-8	TRBJ2-6	14	0.000094	0.000000
TRBV9	TRBJ2-4	13	0.000087	0.000408
TRBV10-1	TRBJ2-3	13	0.000087	0.000177
TRBV27	TRBJ1-3	13	0.000087	0.000000
TRBV6-9	TRBJ2-2	13	0.000087	0.000000
TRBV7-2	TRBJ1-3	12	0.000080	0.001181
TRBV11-2	TRBJ2-6	12	0.000080	0.000288
TRBV7-2	TRBJ2-4	12	0.000080	0.000252
TRBV24-1	TRBJ1-3	12	0.000080	0.000032
TRBV5-4	TRBJ2-4	12	0.000080	0.000032
TRBV7-6	TRBJ1-3	12	0.000080	0.000032
TRBV13	TRBJ2-4	12	0.000080	0.000000
TRBV16	TRBJ1-5	12	0.000080	0.000000
TRBV7-7	TRBJ2-5	12	0.000080	0.000000
TRBV12-5	TRBJ1-3	11	0.000074	0.000530
TRBV14	TRBJ1-5	10	0.000067	0.000523
TRBV7-3	TRBJ1-4	10	0.000067	0.000224
TRBV10-1	TRBJ1-6	10	0.000067	0.000210
TRBV10-2	TRBJ1-6	10	0.000067	0.000000

TRBV10-3	TRBJ2-6	9	0.000060	0.004191
TRBV10-3	TRBJ1-4	9	0.000060	0.000953
TRBV19	TRBJ2-4	9	0.000060	0.000201
TRBV4-2	TRBJ2-4	9	0.000060	0.000000
TRBV5-5	TRBJ2-3	9	0.000060	0.000000
TRBV6-9	TRBJ1-6	9	0.000060	0.000000
TRBV5-6	TRBJ2-6	8	0.000053	0.000433
TRBV28	TRBJ2-4	8	0.000053	0.000418
TRBV6-9	TRBJ2-3	8	0.000053	0.000048
TRBV4-2	TRBJ2-6	8	0.000053	0.000000
TRBV5-5	TRBJ1-1	8	0.000053	0.000000
TRBV5-5	TRBJ2-2	8	0.000053	0.000000
TRBV18	TRBJ2-4	7	0.000047	0.000433
TRBV24-1	TRBJ2-4	7	0.000047	0.000068
TRBV30	TRBJ2-4	7	0.000047	0.000064
TRBV10-2	TRBJ2-5	7	0.000047	0.000000
TRBV7-6	TRBJ1-4	7	0.000047	0.000000
TRBV5-6	TRBJ1-4	6	0.000040	0.000000
TRBV6-1	TRBJ2-4	5	0.000033	0.001595
TRBV10-1	TRBJ1-4	5	0.000033	0.000124
TRBV7-8	TRBJ2-4	5	0.000033	0.000032
TRBV5-3	TRBJ1-5	5	0.000033	0.000000
TRBV6-7	TRBJ2-3	5	0.000033	0.000000
TRBV7-4	TRBJ1-1	5	0.000033	0.000000
TRBV30	TRBJ1-6	4	0.000027	0.000756
TRBV5-6	TRBJ1-6	4	0.000027	0.000163
TRBV12-2	TRBJ2-1	4	0.000027	0.000132
TRBV23-1	TRBJ2-4	4	0.000027	0.000032
TRBV5-3	TRBJ2-4	4	0.000027	0.000000
TRBV6-3	TRBJ2-1	4	0.000027	0.000000
TRBV5-3	TRBJ2-1	3	0.000020	0.000048
TRBV3-2	TRBJ1-4	3	0.000020	0.000036
TRBV6-9	TRBJ1-2	3	0.000020	0.000029
TRBV16	TRBJ2-7	3	0.000020	0.000000
TRBV3-2	TRBJ2-5	3	0.000020	0.000000
TRBV6-3	TRBJ2-5	3	0.000020	0.000000
TRBV8-2	TRBJ1-2	3	0.000020	0.000000
TRBV8-2	TRBJ2-3	3	0.000020	0.000000
TRBV15	TRBJ1-3	2	0.000013	0.000583
TRBV11-3	TRBJ1-6	2	0.000013	0.000108
TRBV23-1	TRBJ2-3	2	0.000013	0.000080
TRBV11-2	TRBJ2-4	2	0.000013	0.000032
TRBV6-7	TRBJ1-2	2	0.000013	0.000032

TRBV12-2	TRBJ1-2	2	0.000013	0.000000
TRBV14	TRBJ1-6	2	0.000013	0.000000
TRBV23-1	TRBJ2-2	2	0.000013	0.000000
TRBV3-2	TRBJ2-7	2	0.000013	0.000000
TRBV5-3	TRBJ2-5	2	0.000013	0.000000
TRBV6-7	TRBJ1-5	2	0.000013	0.000000
TRBV6-7	TRBJ2-5	2	0.000013	0.000000
TRBV7-5	TRBJ2-2	2	0.000013	0.000000
TRBV8-2	TRBJ1-3	2	0.000013	0.000000
TRBV22-1	TRBJ1-3	1	0.000007	0.001161
TRBV3-2	TRBJ1-1	1	0.000007	0.000433
TRBV7-7	TRBJ1-1	1	0.000007	0.000376
TRBV7-3	TRBJ2-4	1	0.000007	0.000356
TRBV11-3	TRBJ1-2	1	0.000007	0.000180
TRBV7-4	TRBJ1-4	1	0.000007	0.000112
TRBV6-3	TRBJ1-5	1	0.000007	0.000106
TRBV29-1	TRBJ1-6	1	0.000007	0.000096
TRBV12-1	TRBJ2-2	1	0.000007	0.000064
TRBV12-5	TRBJ2-6	1	0.000007	0.000064
TRBV10-2	TRBJ1-5	1	0.000007	0.000048
TRBV30	TRBJ2-6	1	0.000007	0.000048
TRBV10-3	TRBJ2-4	1	0.000007	0.000032
TRBV5-3	TRBJ2-3	1	0.000007	0.000032
TRBV26	TRBJ1-1	1	0.000007	0.000016
TRBV11-1	TRBJ1-3	1	0.000007	0.000000
TRBV12-4	TRBJ1-2	1	0.000007	0.000000
TRBV16	TRBJ2-1	1	0.000007	0.000000
TRBV5-3	TRBJ1-1	1	0.000007	0.000000
TRBV5-8	TRBJ1-6	1	0.000007	0.000000
TRBV6-3	TRBJ1-2	1	0.000007	0.000000
TRBV6-3	TRBJ2-2	1	0.000007	0.000000
TRBV6-8	TRBJ1-5	1	0.000007	0.000000
TRBV6-9	TRBJ2-1	1	0.000007	0.000000
TRBV7-4	TRBJ1-5	1	0.000007	0.000000
TRBV7-7	TRBJ2-3	1	0.000007	0.000000
TRBV8-2	TRBJ1-5	1	0.000007	0.000000
TRBV8-2	TRBJ2-1	1	0.000007	0.000000
TRBV8-2	TRBJ2-2	1	0.000007	0.000000
TRBV8-2	TRBJ2-7	1	0.000007	0.000000
TRBV21-1	TRBJ1-1	0	0.000000	0.003739
TRBV21-1	TRBJ2-7	0	0.000000	0.002067
TRBV21-1	TRBJ1-2	0	0.000000	0.001460
TRBV21-1	TRBJ2-5	0	0.000000	0.001320

TRBV21-1	TRBJ2-3	0	0.000000	0.001257
TRBV12-2	TRBJ2-7	0	0.000000	0.001109
TRBV21-1	TRBJ1-5	0	0.000000	0.000995
TRBV5-4	TRBJ2-2P	0	0.000000	0.000956
TRBV7-7	TRBJ2-7	0	0.000000	0.000901
TRBV21-1	TRBJ2-1	0	0.000000	0.000873
TRBV7-6	TRBJ2-5	0	0.000000	0.000853
TRBV21-1	TRBJ1-4	0	0.000000	0.000829
TRBV21-1	TRBJ2-2	0	0.000000	0.000800
TRBV7-4	TRBJ2-6	0	0.000000	0.000530
TRBV1	TRBJ2-1	0	0.000000	0.000525
TRBV22-1	TRBJ2-7	0	0.000000	0.000473
TRBV21-1	TRBJ1-6	0	0.000000	0.000464
TRBV5-2	TRBJ2-4	0	0.000000	0.000459
TRBV21-1	TRBJ2-6	0	0.000000	0.000449
TRBV5-2	TRBJ1-5	0	0.000000	0.000433
TRBV3-2	TRBJ1-2	0	0.000000	0.000408
TRBV5-3	TRBJ1-3	0	0.000000	0.000408
TRBV6-8	TRBJ2-3	0	0.000000	0.000408
TRBV6-3	TRBJ2-4	0	0.000000	0.000355
TRBV6-9	TRBJ1-5	0	0.000000	0.000355
TRBV12-1	TRBJ2-1	0	0.000000	0.000344
TRBV25-1	TRBJ2-4	0	0.000000	0.000344
TRBV12-2	TRBJ1-6	0	0.000000	0.000336
TRBV16	TRBJ1-3	0	0.000000	0.000319
TRBV26	TRBJ1-2	0	0.000000	0.000298
TRBV12-1	TRBJ1-6	0	0.000000	0.000259
TRBV1	TRBJ2-5	0	0.000000	0.000250
TRBV7-6	TRBJ1-1	0	0.000000	0.000210
TRBV3-1	TRBJ2-2	0	0.000000	0.000193
TRBV3-1	TRBJ2-6	0	0.000000	0.000192
TRBV6-3	TRBJ2-7	0	0.000000	0.000163
TRBV21-1	TRBJ2-4	0	0.000000	0.000144
TRBV1	TRBJ2-7	0	0.000000	0.000134
TRBV5-5	TRBJ1-2	0	0.000000	0.000128
TRBV1	TRBJ2-2	0	0.000000	0.000115
TRBV12-1	TRBJ1-5	0	0.000000	0.000115
TRBV23-1	TRBJ2-6	0	0.000000	0.000108
TRBV7-7	TRBJ1-2	0	0.000000	0.000106
TRBV3-2	TRBJ1-3	0	0.000000	0.000096
TRBV5-5	TRBJ2-5	0	0.000000	0.000096
TRBV12-2	TRBJ1-3	0	0.000000	0.000096
TRBV7-6	TRBJ1-6	0	0.000000	0.000096

TRBV21-1	TRBJ1-3	0	0.000000	0.000093
TRBV10-2	TRBJ1-3	0	0.000000	0.000086
TRBV10-2	TRBJ1-4	0	0.000000	0.000082
TRBV6-3	TRBJ1-1	0	0.000000	0.000082
TRBV12-1	TRBJ2-3	0	0.000000	0.000072
TRBV3-2	TRBJ2-2	0	0.000000	0.000072
TRBV7-4	TRBJ2-4	0	0.000000	0.000072
TRBV6-7	TRBJ2-1	0	0.000000	0.000068
TRBV11-1	TRBJ1-4	0	0.000000	0.000064
TRBV3-2	TRBJ1-5	0	0.000000	0.000048
TRBV1	TRBJ1-1	0	0.000000	0.000048
TRBV7-1	TRBJ1-4	0	0.000000	0.000048
TRBV12-2	TRBJ1-5	0	0.000000	0.000036
TRBV3-2	TRBJ2-3	0	0.000000	0.000036
TRBV6-6	TRBJ2-4	0	0.000000	0.000036
TRBV16	TRBJ1-6	0	0.000000	0.000032
TRBV8-2	TRBJ1-4	0	0.000000	0.000032
TRBV1	TRBJ1-2	0	0.000000	0.000032
TRBV6-7	TRBJ2-4	0	0.000000	0.000032
TRBV7-5	TRBJ1-3	0	0.000000	0.000032
TRBV5-5	TRBJ2-4	0	0.000000	0.000029
TRBV1	TRBJ2-3	0	0.000000	0.000016
TRBV5-8	TRBJ1-3	0	0.000000	0.000016
TRBV7-8	TRBJ2-6	0	0.000000	0.000016

Table 9: VJ rearrangements called by MIXCR for A037 fragments collected by Lymphotrack PCR and single CapTCR-Seq run

V.gene	J.gene	Count.A037.PCR	Prop.A037.PCR	Count.A037.Cap	Prop.A037.Cap
TRBV3-1	TRBJ1-1	4382	0.029303588	1	0.000546448
TRBV20-1	TRBJ2-7	2788	0.01864409	40	0.021857923
TRBV14	TRBJ2-7	2422	0.016196552	1	0.000546448
TRBV3-1	TRBJ2-7	2374	0.015875563	2	0.001092896
TRBV9	TRBJ1-1	2134	0.01427062	11	0.006010929
TRBV20-1	TRBJ1-1	1726	0.011542217	18	0.009836066
TRBV14	TRBJ1-2	1724	0.011528842	2	0.001092896
TRBV3-1	TRBJ1-5	1526	0.010204764	0	0
TRBV2	TRBJ1-2	1421	0.009502601	11	0.006010929
TRBV14	TRBJ1-1	1352	0.00904118	0	0
TRBV4-3	TRBJ1-1	1324	0.008853937	1	0.000546448
TRBV4-1	TRBJ2-7	1273	0.008512886	5	0.00273224
TRBV3-1	TRBJ1-2	1272	0.008506199	0	0
TRBV20-1	TRBJ1-2	1269	0.008486137	7	0.003825137
TRBV20-1	TRBJ2-1	1177	0.007870909	11	0.006010929
TRBV18	TRBJ2-7	1143	0.007643542	6	0.003278689
TRBV6-1	TRBJ2-7	1132	0.007569982	19	0.010382514
TRBV7-9	TRBJ2-7	1104	0.007382739	2	0.001092896
TRBV9	TRBJ2-7	1095	0.007322553	11	0.006010929
TRBV28	TRBJ2-7	1080	0.007222245	24	0.013114754
TRBV2	TRBJ1-5	1076	0.007195495	3	0.001639344
TRBV6-5	TRBJ2-7	1055	0.007055063	4	0.002185792
TRBV2	TRBJ2-7	1007	0.006734074	8	0.004371585
TRBV2	TRBJ1-1	999	0.006680576	11	0.006010929
TRBV7-9	TRBJ1-1	981	0.006560205	12	0.006557377
TRBV14	TRBJ2-1	957	0.006399711	2	0.001092896
TRBV9	TRBJ2-1	957	0.006399711	10	0.005464481
TRBV6-4	TRBJ2-2	894	0.005978414	0	0
TRBV20-1	TRBJ1-6	887	0.005931603	9	0.004918033
TRBV4-1	TRBJ1-1	867	0.005797857	3	0.001639344
TRBV4-3	TRBJ2-7	831	0.005557116	0	0
TRBV7-2	TRBJ2-7	808	0.005403309	5	0.00273224
TRBV4-3	TRBJ1-2	803	0.005369873	0	0
TRBV4-2	TRBJ2-7	798	0.005336436	0	0
TRBV20-1	TRBJ2-5	776	0.005189316	11	0.006010929
TRBV20-1	TRBJ1-5	749	0.00500876	15	0.008196721
TRBV6-4	TRBJ2-7	724	0.004841579	6	0.003278689
TRBV7-9	TRBJ1-2	722	0.004828204	2	0.001092896
TRBV6-5	TRBJ1-1	719	0.004808142	2	0.001092896

TRBV3-1	TRBJ2-1	715	0.004781393	15	0.008196721
TRBV9	TRBJ1-2	703	0.004701146	3	0.001639344
TRBV7-8	TRBJ2-7	689	0.004607525	6	0.003278689
TRBV6-4	TRBJ1-5	680	0.004547339	2	0.001092896
TRBV11-2	TRBJ2-7	652	0.004360096	0	0
TRBV20-1	TRBJ2-3	648	0.004333347	15	0.008196721
TRBV4-1	TRBJ1-2	641	0.004286536	11	0.006010929
TRBV18	TRBJ1-1	636	0.0042531	9	0.004918033
TRBV5-1	TRBJ2-7	631	0.004219663	3	0.001639344
TRBV5-1	TRBJ1-2	613	0.004099292	12	0.006557377
TRBV15	TRBJ2-7	613	0.004099292	0	0
TRBV6-4	TRBJ2-1	603	0.00403242	3	0.001639344
TRBV29-1	TRBJ1-1	597	0.003992296	9	0.004918033
TRBV9	TRBJ2-3	585	0.003912049	9	0.004918033
TRBV7-2	TRBJ1-2	584	0.003905362	2	0.001092896
TRBV28	TRBJ1-1	573	0.003831802	8	0.004371585
TRBV6-5	TRBJ1-2	556	0.003718118	6	0.003278689
TRBV4-2	TRBJ1-2	538	0.003597748	0	0
TRBV29-1	TRBJ2-7	529	0.003537562	7	0.003825137
TRBV2	TRBJ2-1	529	0.003537562	9	0.004918033
TRBV6-4	TRBJ1-1	527	0.003524188	6	0.003278689
TRBV7-2	TRBJ2-1	515	0.003443941	0	0
TRBV11-2	TRBJ1-1	510	0.003410504	2	0.001092896
TRBV6-4	TRBJ2-3	507	0.003390443	5	0.00273224
TRBV7-3	TRBJ1-1	503	0.003363694	6	0.003278689
TRBV6-4	TRBJ1-2	491	0.003283446	0	0
TRBV28	TRBJ1-2	485	0.003243323	5	0.00273224
TRBV3-1	TRBJ2-3	481	0.003216574	1	0.000546448
TRBV19	TRBJ2-7	481	0.003216574	15	0.008196721
TRBV20-1	TRBJ1-4	471	0.003149701	3	0.001639344
TRBV27	TRBJ2-7	460	0.003076141	15	0.008196721
TRBV7-2	TRBJ1-1	447	0.002989207	5	0.00273224
TRBV2	TRBJ2-5	443	0.002962458	9	0.004918033
TRBV7-2	TRBJ1-5	439	0.002935709	3	0.001639344
TRBV20-1	TRBJ2-2	433	0.002895585	7	0.003825137
TRBV2	TRBJ1-4	415	0.002775214	2	0.001092896
TRBV9	TRBJ1-5	406	0.002715029	7	0.003825137
TRBV15	TRBJ1-2	403	0.002694967	2	0.001092896
TRBV7-3	TRBJ2-7	401	0.002681593	8	0.004371585
TRBV15	TRBJ1-5	400	0.002674905	1	0.000546448
TRBV14	TRBJ2-2	391	0.00261472	2	0.001092896
TRBV5-1	TRBJ1-1	384	0.002567909	3	0.001639344
TRBV3-1	TRBJ2-5	380	0.00254116	0	0

TRBV6-1	TRBJ1-1	379	0.002534473	3	0.001639344
TRBV4-2	TRBJ1-5	376	0.002514411	0	0
TRBV7-3	TRBJ2-1	372	0.002487662	1	0.000546448
TRBV19	TRBJ1-1	371	0.002480975	13	0.007103825
TRBV13	TRBJ2-7	366	0.002447538	2	0.001092896
TRBV4-1	TRBJ1-4	359	0.002400728	2	0.001092896
TRBV18	TRBJ1-2	359	0.002400728	9	0.004918033
TRBV4-2	TRBJ2-1	358	0.00239404	0	0
TRBV2	TRBJ2-2	357	0.002387353	5	0.00273224
TRBV4-3	TRBJ2-1	351	0.002347229	0	0
TRBV6-5	TRBJ2-1	349	0.002333855	3	0.001639344
TRBV6-5	TRBJ1-5	348	0.002327168	5	0.00273224
TRBV9	TRBJ1-4	348	0.002327168	5	0.00273224
TRBV4-1	TRBJ2-1	345	0.002307106	4	0.002185792
TRBV11-2	TRBJ1-2	342	0.002287044	5	0.00273224
TRBV4-1	TRBJ1-5	340	0.00227367	2	0.001092896
TRBV4-2	TRBJ1-1	338	0.002260295	2	0.001092896
TRBV9	TRBJ2-2	326	0.002180048	4	0.002185792
TRBV14	TRBJ1-4	325	0.002173361	0	0
TRBV4-1	TRBJ2-2	322	0.002153299	0	0
TRBV4-3	TRBJ2-3	322	0.002153299	0	0
TRBV7-9	TRBJ1-5	316	0.002113175	4	0.002185792
TRBV29-1	TRBJ1-5	310	0.002073052	6	0.003278689
TRBV6-6	TRBJ2-7	306	0.002046303	2	0.001092896
TRBV6-6	TRBJ1-1	304	0.002032928	4	0.002185792
TRBV12-5	TRBJ1-1	304	0.002032928	0	0
TRBV6-4	TRBJ2-5	292	0.001952681	2	0.001092896
TRBV5-8	TRBJ2-1	292	0.001952681	0	0
TRBV7-9	TRBJ2-1	291	0.001945994	10	0.005464481
TRBV5-6	TRBJ2-7	282	0.001885808	0	0
TRBV9	TRBJ2-5	281	0.001879121	3	0.001639344
TRBV2	TRBJ2-3	281	0.001879121	7	0.003825137
TRBV5-4	TRBJ2-7	280	0.001872434	4	0.002185792
TRBV15	TRBJ2-1	279	0.001865746	2	0.001092896
TRBV5-8	TRBJ1-4	279	0.001865746	0	0
TRBV4-2	TRBJ2-2	278	0.001859059	2	0.001092896
TRBV11-2	TRBJ2-1	275	0.001838997	0	0
TRBV28	TRBJ1-5	263	0.00175875	9	0.004918033
TRBV7-8	TRBJ1-1	262	0.001752063	3	0.001639344
TRBV30	TRBJ2-7	262	0.001752063	4	0.002185792
TRBV4-1	TRBJ2-3	254	0.001698565	1	0.000546448
TRBV27	TRBJ1-5	254	0.001698565	8	0.004371585
TRBV27	TRBJ1-2	253	0.001691878	6	0.003278689

TRBV14	TRBJ2-3	249	0.001665129	0	0
TRBV27	TRBJ1-1	245	0.00163838	17	0.009289617
TRBV29-1	TRBJ2-1	243	0.001625005	2	0.001092896
TRBV29-1	TRBJ1-2	243	0.001625005	3	0.001639344
TRBV7-2	TRBJ2-5	240	0.001604943	4	0.002185792
TRBV4-3	TRBJ1-6	240	0.001604943	0	0
TRBV5-8	TRBJ1-2	237	0.001584881	0	0
TRBV4-2	TRBJ2-3	233	0.001558132	0	0
TRBV7-9	TRBJ2-3	231	0.001544758	8	0.004371585
TRBV4-3	TRBJ1-5	231	0.001544758	0	0
TRBV19	TRBJ2-2	229	0.001531383	6	0.003278689
TRBV4-2	TRBJ1-4	227	0.001518009	0	0
TRBV28	TRBJ2-1	225	0.001504634	4	0.002185792
TRBV15	TRBJ2-3	222	0.001484572	3	0.001639344
TRBV6-6	TRBJ2-1	222	0.001484572	12	0.006557377
TRBV11-3	TRBJ2-1	222	0.001484572	0	0
TRBV18	TRBJ1-5	220	0.001471198	4	0.002185792
TRBV25-1	TRBJ1-1	219	0.001464511	1	0.000546448
TRBV7-3	TRBJ1-2	218	0.001457823	1	0.000546448
TRBV5-1	TRBJ2-5	218	0.001457823	4	0.002185792
TRBV12-5	TRBJ1-2	217	0.001451136	2	0.001092896
TRBV3-1	TRBJ1-4	210	0.001404325	2	0.001092896
TRBV7-2	TRBJ2-3	210	0.001404325	5	0.00273224
TRBV14	TRBJ2-5	209	0.001397638	4	0.002185792
TRBV4-1	TRBJ2-5	209	0.001397638	4	0.002185792
TRBV2	TRBJ1-6	209	0.001397638	0	0
TRBV7-9	TRBJ2-2	208	0.001390951	1	0.000546448
TRBV6-5	TRBJ2-5	208	0.001390951	2	0.001092896
TRBV6-5	TRBJ2-3	205	0.001370889	0	0
TRBV19	TRBJ1-2	204	0.001364202	10	0.005464481
TRBV12-5	TRBJ2-7	203	0.001357514	1	0.000546448
TRBV10-3	TRBJ2-7	202	0.001350827	8	0.004371585
TRBV6-1	TRBJ1-2	201	0.00134414	0	0
TRBV7-3	TRBJ2-3	200	0.001337453	8	0.004371585
TRBV19	TRBJ2-1	198	0.001324078	12	0.006557377
TRBV4-2	TRBJ2-5	197	0.001317391	2	0.001092896
TRBV29-1	TRBJ2-3	195	0.001304016	1	0.000546448
TRBV7-3	TRBJ2-2	194	0.001297329	0	0
TRBV7-9	TRBJ1-4	189	0.001263893	3	0.001639344
TRBV5-4	TRBJ1-2	187	0.001250518	4	0.002185792
TRBV6-5	TRBJ2-2	187	0.001250518	0	0
TRBV15	TRBJ1-4	183	0.001223769	0	0
TRBV13	TRBJ1-1	182	0.001217082	0	0

TRBV3-1	TRBJ1-3	181	0.001210395	0	0
TRBV4-3	TRBJ1-3	180	0.001203707	0	0
TRBV7-8	TRBJ1-5	178	0.001190333	1	0.000546448
TRBV5-3	TRBJ1-4	177	0.001183646	13	0.007103825
TRBV25-1	TRBJ1-2	175	0.001170271	2	0.001092896
TRBV19	TRBJ1-5	172	0.001150209	5	0.00273224
TRBV29-1	TRBJ2-5	170	0.001136835	2	0.001092896
TRBV24-1	TRBJ1-1	169	0.001130148	1	0.000546448
TRBV6-4	TRBJ1-4	169	0.001130148	1	0.000546448
TRBV6-4	TRBJ2-6	169	0.001130148	2	0.001092896
TRBV10-1	TRBJ2-7	168	0.00112346	0	0
TRBV7-9	TRBJ2-5	164	0.001096711	2	0.001092896
TRBV11-3	TRBJ1-1	164	0.001096711	0	0
TRBV23-1	TRBJ2-7	159	0.001063275	3	0.001639344
TRBV7-2	TRBJ2-2	158	0.001056588	4	0.002185792
TRBV2	TRBJ1-3	157	0.0010499	1	0.000546448
TRBV15	TRBJ1-1	157	0.0010499	0	0
TRBV6-6	TRBJ1-5	156	0.001043213	2	0.001092896
TRBV7-8	TRBJ1-3	156	0.001043213	2	0.001092896
TRBV5-1	TRBJ2-3	154	0.001029839	9	0.004918033
TRBV5-8	TRBJ1-5	154	0.001029839	0	0
TRBV11-3	TRBJ2-2	153	0.001023151	0	0
TRBV15	TRBJ1-6	153	0.001023151	0	0
TRBV5-6	TRBJ1-1	153	0.001023151	0	0
TRBV7-4	TRBJ2-7	153	0.001023151	0	0
TRBV25-1	TRBJ2-7	152	0.001016464	2	0.001092896
TRBV4-2	TRBJ1-3	150	0.00100309	0	0
TRBV5-4	TRBJ1-1	149	0.000996402	1	0.000546448
TRBV6-5	TRBJ1-3	149	0.000996402	2	0.001092896
TRBV5-4	TRBJ2-1	146	0.00097634	0	0
TRBV6-1	TRBJ2-1	145	0.000969653	1	0.000546448
TRBV5-6	TRBJ2-1	143	0.000956279	0	0
TRBV10-3	TRBJ1-5	142	0.000949591	5	0.00273224
TRBV11-2	TRBJ2-3	141	0.000942904	1	0.000546448
TRBV6-1	TRBJ1-5	140	0.000936217	1	0.000546448
TRBV18	TRBJ2-1	139	0.00092953	2	0.001092896
TRBV11-3	TRBJ2-7	136	0.000909468	0	0
TRBV18	TRBJ2-5	135	0.000902781	0	0
TRBV6-6	TRBJ1-2	134	0.000896093	0	0
TRBV18	TRBJ2-2	130	0.000869344	2	0.001092896
TRBV19	TRBJ1-4	130	0.000869344	5	0.00273224
TRBV18	TRBJ1-4	130	0.000869344	7	0.003825137
TRBV11-2	TRBJ1-4	128	0.00085597	0	0

TRBV7-3	TRBJ1-5	128	0.00085597	0	0
TRBV7-8	TRBJ1-2	127	0.000849282	1	0.000546448
TRBV25-1	TRBJ1-5	126	0.000842595	2	0.001092896
TRBV10-3	TRBJ1-1	125	0.000835908	5	0.00273224
TRBV7-8	TRBJ2-1	125	0.000835908	0	0
TRBV12-5	TRBJ1-5	123	0.000822533	0	0
TRBV25-1	TRBJ2-1	123	0.000822533	0	0
TRBV6-5	TRBJ1-6	122	0.000815846	3	0.001639344
TRBV28	TRBJ2-5	121	0.000809159	2	0.001092896
TRBV9	TRBJ2-6	121	0.000809159	0	0
TRBV15	TRBJ2-5	120	0.000802472	0	0
TRBV5-6	TRBJ1-2	119	0.000795784	0	0
TRBV7-3	TRBJ2-5	119	0.000795784	0	0
TRBV30	TRBJ1-5	118	0.000789097	2	0.001092896
TRBV20-1	TRBJ1-3	117	0.00078241	3	0.001639344
TRBV5-1	TRBJ1-4	117	0.00078241	8	0.004371585
TRBV18	TRBJ1-3	116	0.000775723	2	0.001092896
TRBV10-3	TRBJ1-2	116	0.000775723	0	0
TRBV27	TRBJ2-2	114	0.000762348	1	0.000546448
TRBV5-8	TRBJ1-1	114	0.000762348	1	0.000546448
TRBV28	TRBJ2-3	114	0.000762348	7	0.003825137
TRBV12-5	TRBJ2-5	112	0.000748974	0	0
TRBV6-1	TRBJ1-4	111	0.000742286	7	0.003825137
TRBV13	TRBJ1-2	111	0.000742286	0	0
TRBV14	TRBJ2-6	111	0.000742286	0	0
TRBV4-3	TRBJ2-2	111	0.000742286	0	0
TRBV11-2	TRBJ2-5	110	0.000735599	0	0
TRBV28	TRBJ2-2	109	0.000728912	1	0.000546448
TRBV18	TRBJ2-3	109	0.000728912	2	0.001092896
TRBV6-1	TRBJ2-3	109	0.000728912	2	0.001092896
TRBV29-1	TRBJ2-2	109	0.000728912	0	0
TRBV9	TRBJ1-6	109	0.000728912	0	0
TRBV5-4	TRBJ2-3	107	0.000715537	1	0.000546448
TRBV7-2	TRBJ1-6	104	0.000695475	1	0.000546448
TRBV5-1	TRBJ2-1	104	0.000695475	7	0.003825137
TRBV27	TRBJ2-1	103	0.000688788	5	0.00273224
TRBV29-1	TRBJ1-4	103	0.000688788	0	0
TRBV6-4	TRBJ1-6	102	0.000682101	2	0.001092896
TRBV3-1	TRBJ2-4	102	0.000682101	0	0
TRBV7-3	TRBJ1-6	101	0.000675414	0	0
TRBV28	TRBJ1-3	100	0.000668726	2	0.001092896
TRBV4-1	TRBJ1-6	100	0.000668726	0	0
TRBV11-2	TRBJ1-5	97	0.000648665	0	0

TRBV11-3	TRBJ2-3	97	0.000648665	0	0
TRBV12-5	TRBJ2-2	97	0.000648665	0	0
TRBV25-1	TRBJ1-6	97	0.000648665	0	0
TRBV7-8	TRBJ2-2	96	0.000641977	0	0
TRBV18	TRBJ1-6	95	0.00063529	1	0.000546448
TRBV5-1	TRBJ1-5	95	0.00063529	1	0.000546448
TRBV9	TRBJ1-3	95	0.00063529	4	0.002185792
TRBV13	TRBJ1-5	94	0.000628603	0	0
TRBV20-1	TRBJ2-4	93	0.000621915	3	0.001639344
TRBV12-5	TRBJ1-4	92	0.000615228	0	0
TRBV6-1	TRBJ2-5	91	0.000608541	2	0.001092896
TRBV10-1	TRBJ2-1	90	0.000601854	1	0.000546448
TRBV4-1	TRBJ1-3	90	0.000601854	0	0
TRBV5-4	TRBJ1-4	90	0.000601854	0	0
TRBV12-5	TRBJ2-1	89	0.000595166	2	0.001092896
TRBV6-5	TRBJ2-6	88	0.000588479	1	0.000546448
TRBV25-1	TRBJ2-2	87	0.000581792	1	0.000546448
TRBV24-1	TRBJ1-2	86	0.000575105	3	0.001639344
TRBV5-8	TRBJ2-5	86	0.000575105	0	0
TRBV14	TRBJ1-3	85	0.000568417	1	0.000546448
TRBV27	TRBJ2-3	85	0.000568417	11	0.006010929
TRBV19	TRBJ2-5	84	0.00056173	3	0.001639344
TRBV20-1	TRBJ2-6	84	0.00056173	3	0.001639344
TRBV10-1	TRBJ1-2	83	0.000555043	2	0.001092896
TRBV5-6	TRBJ2-5	82	0.000548356	0	0
TRBV30	TRBJ1-2	81	0.000541668	2	0.001092896
TRBV10-3	TRBJ2-5	80	0.000534981	4	0.002185792
TRBV30	TRBJ1-1	78	0.000521607	1	0.000546448
TRBV10-1	TRBJ1-1	78	0.000521607	0	0
TRBV24-1	TRBJ2-7	76	0.000508232	3	0.001639344
TRBV11-1	TRBJ2-1	75	0.000501545	0	0
TRBV24-1	TRBJ1-5	74	0.000494857	2	0.001092896
TRBV10-3	TRBJ2-1	73	0.00048817	5	0.00273224
TRBV10-2	TRBJ1-1	72	0.000481483	1	0.000546448
TRBV7-8	TRBJ1-6	72	0.000481483	1	0.000546448
TRBV7-4	TRBJ1-2	72	0.000481483	2	0.001092896
TRBV11-3	TRBJ2-5	71	0.000474796	0	0
TRBV13	TRBJ1-4	71	0.000474796	0	0
TRBV7-9	TRBJ1-3	70	0.000468108	10	0.005464481
TRBV6-6	TRBJ2-3	70	0.000468108	0	0
TRBV7-3	TRBJ2-6	70	0.000468108	0	0
TRBV7-9	TRBJ1-6	68	0.000454734	2	0.001092896
TRBV15	TRBJ2-4	67	0.000448047	2	0.001092896

TRBV24-1	TRBJ2-1	67	0.000448047	12	0.006557377
TRBV23-1	TRBJ1-6	67	0.000448047	0	0
TRBV30	TRBJ2-1	66	0.000441359	1	0.000546448
TRBV23-1	TRBJ1-5	66	0.000441359	0	0
TRBV6-8	TRBJ2-7	65	0.000434672	5	0.00273224
TRBV5-8	TRBJ2-2	65	0.000434672	0	0
TRBV11-2	TRBJ1-6	64	0.000427985	0	0
TRBV24-1	TRBJ2-2	63	0.000421298	0	0
TRBV6-6	TRBJ2-2	63	0.000421298	0	0
TRBV11-2	TRBJ2-2	62	0.00041461	1	0.000546448
TRBV5-8	TRBJ2-7	62	0.00041461	2	0.001092896
TRBV13	TRBJ2-5	62	0.00041461	0	0
TRBV5-6	TRBJ1-5	62	0.00041461	0	0
TRBV7-4	TRBJ2-3	62	0.00041461	0	0
TRBV2	TRBJ2-6	61	0.000407923	0	0
TRBV7-2	TRBJ1-4	60	0.000401236	0	0
TRBV11-1	TRBJ2-7	59	0.000394549	1	0.000546448
TRBV5-1	TRBJ1-3	59	0.000394549	1	0.000546448
TRBV25-1	TRBJ2-3	59	0.000394549	2	0.001092896
TRBV5-8	TRBJ2-3	59	0.000394549	0	0
TRBV6-4	TRBJ1-3	59	0.000394549	0	0
TRBV19	TRBJ2-3	58	0.000387861	2	0.001092896
TRBV23-1	TRBJ1-2	57	0.000381174	1	0.000546448
TRBV5-4	TRBJ1-6	57	0.000381174	1	0.000546448
TRBV11-1	TRBJ1-1	57	0.000381174	0	0
TRBV6-5	TRBJ1-4	56	0.000374487	1	0.000546448
TRBV15	TRBJ2-2	56	0.000374487	3	0.001639344
TRBV10-1	TRBJ2-5	56	0.000374487	4	0.002185792
TRBV28	TRBJ2-6	55	0.000367799	0	0
TRBV5-4	TRBJ1-5	55	0.000367799	0	0
TRBV27	TRBJ2-5	54	0.000361112	3	0.001639344
TRBV4-1	TRBJ2-6	53	0.000354425	1	0.000546448
TRBV7-8	TRBJ2-5	53	0.000354425	3	0.001639344
TRBV10-2	TRBJ2-2	52	0.000347738	2	0.001092896
TRBV10-3	TRBJ2-2	52	0.000347738	2	0.001092896
TRBV19	TRBJ1-3	52	0.000347738	14	0.007650273
TRBV4-3	TRBJ1-4	52	0.000347738	0	0
TRBV4-3	TRBJ2-6	52	0.000347738	0	0
TRBV6-7	TRBJ2-7	52	0.000347738	0	0
TRBV27	TRBJ1-4	51	0.00034105	4	0.002185792
TRBV5-4	TRBJ2-5	51	0.00034105	0	0
TRBV6-1	TRBJ2-2	50	0.000334363	1	0.000546448
TRBV28	TRBJ1-4	50	0.000334363	3	0.001639344

TRBV13	TRBJ2-3	49	0.000327676	1	0.000546448
TRBV5-3	TRBJ2-7	49	0.000327676	1	0.000546448
TRBV30	TRBJ2-5	49	0.000327676	2	0.001092896
TRBV7-8	TRBJ2-3	49	0.000327676	2	0.001092896
TRBV13	TRBJ2-1	49	0.000327676	3	0.001639344
TRBV5-1	TRBJ2-2	49	0.000327676	4	0.002185792
TRBV18	TRBJ2-6	48	0.000320989	2	0.001092896
TRBV7-8	TRBJ1-4	48	0.000320989	0	0
TRBV12-5	TRBJ2-3	47	0.000314301	1	0.000546448
TRBV30	TRBJ1-3	47	0.000314301	4	0.002185792
TRBV16	TRBJ1-2	47	0.000314301	0	0
TRBV6-1	TRBJ2-6	44	0.00029424	0	0
TRBV6-8	TRBJ2-5	44	0.00029424	0	0
TRBV24-1	TRBJ2-5	43	0.000287552	6	0.003278689
TRBV25-1	TRBJ2-5	43	0.000287552	0	0
TRBV4-2	TRBJ1-6	43	0.000287552	0	0
TRBV6-4	TRBJ2-4	43	0.000287552	0	0
TRBV5-6	TRBJ2-2	42	0.000280865	2	0.001092896
TRBV23-1	TRBJ1-1	42	0.000280865	0	0
TRBV5-6	TRBJ2-3	42	0.000280865	0	0
TRBV7-3	TRBJ1-3	42	0.000280865	0	0
TRBV10-2	TRBJ2-7	41	0.000274178	1	0.000546448
TRBV14	TRBJ2-4	41	0.000274178	0	0
TRBV19	TRBJ1-6	40	0.000267491	0	0
TRBV3-1	TRBJ1-6	40	0.000267491	0	0
TRBV10-3	TRBJ2-3	39	0.000260803	1	0.000546448
TRBV4-3	TRBJ2-5	39	0.000260803	0	0
TRBV11-1	TRBJ1-2	38	0.000254116	0	0
TRBV16	TRBJ1-1	38	0.000254116	0	0
TRBV6-6	TRBJ1-6	38	0.000254116	0	0
TRBV6-7	TRBJ2-2	37	0.000247429	3	0.001639344
TRBV6-6	TRBJ1-3	37	0.000247429	0	0
TRBV19	TRBJ2-6	36	0.000240741	2	0.001092896
TRBV27	TRBJ1-6	35	0.000234054	0	0
TRBV5-3	TRBJ1-2	34	0.000227367	0	0
TRBV6-1	TRBJ1-3	34	0.000227367	0	0
TRBV7-6	TRBJ2-3	34	0.000227367	0	0
TRBV5-1	TRBJ2-6	33	0.00022068	1	0.000546448
TRBV24-1	TRBJ2-3	33	0.00022068	7	0.003825137
TRBV7-2	TRBJ2-6	33	0.00022068	0	0
TRBV23-1	TRBJ2-5	32	0.000213992	1	0.000546448
TRBV30	TRBJ2-2	32	0.000213992	4	0.002185792
TRBV6-6	TRBJ2-5	31	0.000207305	0	0

TRBV30	TRBJ2-3	30	0.000200618	2	0.001092896
TRBV12-5	TRBJ1-6	30	0.000200618	0	0
TRBV29-1	TRBJ2-6	30	0.000200618	0	0
TRBV30	TRBJ1-4	29	0.000193931	1	0.000546448
TRBV10-1	TRBJ2-2	29	0.000193931	0	0
TRBV11-1	TRBJ2-5	29	0.000193931	0	0
TRBV29-1	TRBJ1-3	29	0.000193931	0	0
TRBV5-4	TRBJ1-3	29	0.000193931	0	0
TRBV6-6	TRBJ2-6	29	0.000193931	0	0
TRBV10-3	TRBJ1-3	28	0.000187243	2	0.001092896
TRBV11-1	TRBJ2-2	28	0.000187243	0	0
TRBV25-1	TRBJ1-4	28	0.000187243	0	0
TRBV6-9	TRBJ2-7	28	0.000187243	0	0
TRBV29-1	TRBJ2-4	27	0.000180556	2	0.001092896
TRBV23-1	TRBJ2-1	27	0.000180556	0	0
TRBV25-1	TRBJ1-3	27	0.000180556	0	0
TRBV13	TRBJ2-6	26	0.000173869	1	0.000546448
TRBV11-2	TRBJ1-3	26	0.000173869	0	0
TRBV24-1	TRBJ1-4	26	0.000173869	0	0
TRBV10-2	TRBJ2-1	25	0.000167182	0	0
TRBV10-3	TRBJ1-6	25	0.000167182	0	0
TRBV11-3	TRBJ1-5	25	0.000167182	0	0
TRBV11-3	TRBJ2-4	25	0.000167182	0	0
TRBV15	TRBJ2-6	25	0.000167182	0	0
TRBV6-9	TRBJ1-1	24	0.000160494	0	0
TRBV5-1	TRBJ1-6	23	0.000153807	2	0.001092896
TRBV6-6	TRBJ1-4	23	0.000153807	2	0.001092896
TRBV11-3	TRBJ1-3	23	0.000153807	0	0
TRBV23-1	TRBJ1-3	23	0.000153807	0	0
TRBV25-1	TRBJ2-6	23	0.000153807	0	0
TRBV10-1	TRBJ1-3	22	0.00014712	2	0.001092896
TRBV13	TRBJ1-6	22	0.00014712	0	0
TRBV7-4	TRBJ2-1	22	0.00014712	0	0
TRBV7-6	TRBJ2-7	21	0.000140433	1	0.000546448
TRBV10-1	TRBJ1-5	21	0.000140433	2	0.001092896
TRBV28	TRBJ1-6	21	0.000140433	3	0.001639344
TRBV7-4	TRBJ2-2	21	0.000140433	0	0
TRBV10-2	TRBJ2-3	20	0.000133745	0	0
TRBV11-3	TRBJ2-6	20	0.000133745	0	0
TRBV27	TRBJ2-4	20	0.000133745	0	0
TRBV5-6	TRBJ1-3	20	0.000133745	0	0
TRBV6-7	TRBJ1-1	20	0.000133745	0	0
TRBV6-1	TRBJ1-6	19	0.000127058	0	0

TRBV7-9	TRBJ2-6	18	0.000120371	2	0.001092896
TRBV24-1	TRBJ2-6	18	0.000120371	3	0.001639344
TRBV5-4	TRBJ2-2	18	0.000120371	0	0
TRBV6-5	TRBJ2-4	18	0.000120371	0	0
TRBV6-9	TRBJ2-5	18	0.000120371	0	0
TRBV7-6	TRBJ2-1	18	0.000120371	0	0
TRBV2	TRBJ2-4	17	0.000113683	2	0.001092896
TRBV27	TRBJ2-6	17	0.000113683	0	0
TRBV7-9	TRBJ2-4	17	0.000113683	0	0
TRBV12-5	TRBJ2-4	16	0.000106996	1	0.000546448
TRBV24-1	TRBJ1-6	16	0.000106996	1	0.000546448
TRBV4-1	TRBJ2-4	16	0.000106996	0	0
TRBV13	TRBJ2-2	15	0.000100309	1	0.000546448
TRBV6-8	TRBJ1-4	15	0.000100309	1	0.000546448
TRBV10-2	TRBJ1-2	15	0.000100309	2	0.001092896
TRBV11-1	TRBJ2-3	15	0.000100309	0	0
TRBV23-1	TRBJ1-4	15	0.000100309	0	0
TRBV6-9	TRBJ1-3	15	0.000100309	0	0
TRBV7-6	TRBJ1-2	15	0.000100309	0	0
TRBV13	TRBJ1-3	14	9.36217E-05	1	0.000546448
TRBV11-1	TRBJ1-6	14	9.36217E-05	0	0
TRBV5-1	TRBJ2-4	14	9.36217E-05	0	0
TRBV5-4	TRBJ2-6	14	9.36217E-05	0	0
TRBV5-8	TRBJ2-6	14	9.36217E-05	0	0
TRBV7-6	TRBJ2-2	14	9.36217E-05	0	0
TRBV9	TRBJ2-4	13	8.69344E-05	2	0.001092896
TRBV10-1	TRBJ2-3	13	8.69344E-05	4	0.002185792
TRBV27	TRBJ1-3	13	8.69344E-05	0	0
TRBV6-9	TRBJ2-2	13	8.69344E-05	0	0
TRBV24-1	TRBJ1-3	12	8.02472E-05	1	0.000546448
TRBV5-4	TRBJ2-4	12	8.02472E-05	1	0.000546448
TRBV7-6	TRBJ1-3	12	8.02472E-05	1	0.000546448
TRBV11-2	TRBJ2-6	12	8.02472E-05	0	0
TRBV13	TRBJ2-4	12	8.02472E-05	0	0
TRBV16	TRBJ1-5	12	8.02472E-05	0	0
TRBV7-2	TRBJ1-3	12	8.02472E-05	0	0
TRBV7-2	TRBJ2-4	12	8.02472E-05	0	0
TRBV7-7	TRBJ2-5	12	8.02472E-05	0	0
TRBV12-5	TRBJ1-3	11	7.35599E-05	0	0
TRBV10-1	TRBJ1-6	10	6.68726E-05	1	0.000546448
TRBV14	TRBJ1-5	10	6.68726E-05	1	0.000546448
TRBV7-3	TRBJ1-4	10	6.68726E-05	2	0.001092896
TRBV10-2	TRBJ1-6	10	6.68726E-05	0	0

TRBV10-3	TRBJ1-4	9	6.01854E-05	2	0.001092896
TRBV10-3	TRBJ2-6	9	6.01854E-05	0	0
TRBV19	TRBJ2-4	9	6.01854E-05	0	0
TRBV4-2	TRBJ2-4	9	6.01854E-05	0	0
TRBV5-5	TRBJ2-3	9	6.01854E-05	0	0
TRBV6-9	TRBJ1-6	9	6.01854E-05	0	0
TRBV28	TRBJ2-4	8	5.34981E-05	1	0.000546448
TRBV4-2	TRBJ2-6	8	5.34981E-05	0	0
TRBV5-5	TRBJ1-1	8	5.34981E-05	0	0
TRBV5-5	TRBJ2-2	8	5.34981E-05	0	0
TRBV5-6	TRBJ2-6	8	5.34981E-05	0	0
TRBV6-9	TRBJ2-3	8	5.34981E-05	0	0
TRBV30	TRBJ2-4	7	4.68108E-05	2	0.001092896
TRBV10-2	TRBJ2-5	7	4.68108E-05	0	0
TRBV18	TRBJ2-4	7	4.68108E-05	0	0
TRBV24-1	TRBJ2-4	7	4.68108E-05	0	0
TRBV7-6	TRBJ1-4	7	4.68108E-05	0	0
TRBV5-6	TRBJ1-4	6	4.01236E-05	0	0
TRBV7-8	TRBJ2-4	5	3.34363E-05	1	0.000546448
TRBV10-1	TRBJ1-4	5	3.34363E-05	0	0
TRBV5-3	TRBJ1-5	5	3.34363E-05	0	0
TRBV6-1	TRBJ2-4	5	3.34363E-05	0	0
TRBV6-7	TRBJ2-3	5	3.34363E-05	0	0
TRBV7-4	TRBJ1-1	5	3.34363E-05	0	0
TRBV23-1	TRBJ2-4	4	2.67491E-05	1	0.000546448
TRBV30	TRBJ1-6	4	2.67491E-05	3	0.001639344
TRBV12-2	TRBJ2-1	4	2.67491E-05	0	0
TRBV5-3	TRBJ2-4	4	2.67491E-05	0	0
TRBV5-6	TRBJ1-6	4	2.67491E-05	0	0
TRBV6-3	TRBJ2-1	4	2.67491E-05	0	0
TRBV16	TRBJ2-7	3	2.00618E-05	0	0
TRBV3-2	TRBJ1-4	3	2.00618E-05	0	0
TRBV3-2	TRBJ2-5	3	2.00618E-05	0	0
TRBV5-3	TRBJ2-1	3	2.00618E-05	0	0
TRBV6-3	TRBJ2-5	3	2.00618E-05	0	0
TRBV6-9	TRBJ1-2	3	2.00618E-05	0	0
TRBV8-2	TRBJ1-2	3	2.00618E-05	0	0
TRBV8-2	TRBJ2-3	3	2.00618E-05	0	0
TRBV11-2	TRBJ2-4	2	1.33745E-05	1	0.000546448
TRBV15	TRBJ1-3	2	1.33745E-05	2	0.001092896
TRBV11-3	TRBJ1-6	2	1.33745E-05	0	0
TRBV12-2	TRBJ1-2	2	1.33745E-05	0	0
TRBV14	TRBJ1-6	2	1.33745E-05	0	0

TRBV23-1	TRBJ2-2	2	1.33745E-05	0	0
TRBV23-1	TRBJ2-3	2	1.33745E-05	0	0
TRBV3-2	TRBJ2-7	2	1.33745E-05	0	0
TRBV5-3	TRBJ2-5	2	1.33745E-05	0	0
TRBV6-7	TRBJ1-2	2	1.33745E-05	0	0
TRBV6-7	TRBJ1-5	2	1.33745E-05	0	0
TRBV6-7	TRBJ2-5	2	1.33745E-05	0	0
TRBV7-5	TRBJ2-2	2	1.33745E-05	0	0
TRBV8-2	TRBJ1-3	2	1.33745E-05	0	0
TRBV10-2	TRBJ1-5	1	6.68726E-06	1	0.000546448
TRBV10-3	TRBJ2-4	1	6.68726E-06	1	0.000546448
TRBV5-3	TRBJ2-3	1	6.68726E-06	1	0.000546448
TRBV12-1	TRBJ2-2	1	6.68726E-06	2	0.001092896
TRBV12-5	TRBJ2-6	1	6.68726E-06	2	0.001092896
TRBV11-1	TRBJ1-3	1	6.68726E-06	0	0
TRBV11-3	TRBJ1-2	1	6.68726E-06	0	0
TRBV12-4	TRBJ1-2	1	6.68726E-06	0	0
TRBV16	TRBJ2-1	1	6.68726E-06	0	0
TRBV22-1	TRBJ1-3	1	6.68726E-06	0	0
TRBV26	TRBJ1-1	1	6.68726E-06	0	0
TRBV29-1	TRBJ1-6	1	6.68726E-06	0	0
TRBV3-2	TRBJ1-1	1	6.68726E-06	0	0
TRBV30	TRBJ2-6	1	6.68726E-06	0	0
TRBV5-3	TRBJ1-1	1	6.68726E-06	0	0
TRBV5-8	TRBJ1-6	1	6.68726E-06	0	0
TRBV6-3	TRBJ1-2	1	6.68726E-06	0	0
TRBV6-3	TRBJ1-5	1	6.68726E-06	0	0
TRBV6-3	TRBJ2-2	1	6.68726E-06	0	0
TRBV6-8	TRBJ1-5	1	6.68726E-06	0	0
TRBV6-9	TRBJ2-1	1	6.68726E-06	0	0
TRBV7-3	TRBJ2-4	1	6.68726E-06	0	0
TRBV7-4	TRBJ1-4	1	6.68726E-06	0	0
TRBV7-4	TRBJ1-5	1	6.68726E-06	0	0
TRBV7-7	TRBJ1-1	1	6.68726E-06	0	0
TRBV7-7	TRBJ2-3	1	6.68726E-06	0	0
TRBV8-2	TRBJ1-5	1	6.68726E-06	0	0
TRBV8-2	TRBJ2-1	1	6.68726E-06	0	0
TRBV8-2	TRBJ2-2	1	6.68726E-06	0	0
TRBV8-2	TRBJ2-7	1	6.68726E-06	0	0
TRBV21-1	TRBJ2-7	0	0	6	0.003278689
TRBV21-1	TRBJ1-1	0	0	5	0.00273224
TRBV22-1	TRBJ2-7	0	0	4	0.002185792
TRBV21-1	TRBJ1-5	0	0	3	0.001639344

TRBV21-1	TRBJ2-3	0	0	3	0.001639344
TRBV3-1	TRBJ2-2	0	0	3	0.001639344
TRBV3-2	TRBJ1-3	0	0	3	0.001639344
TRBV21-1	TRBJ1-2	0	0	2	0.001092896
TRBV21-1	TRBJ1-3	0	0	2	0.001092896
TRBV21-1	TRBJ2-2	0	0	2	0.001092896
TRBV21-1	TRBJ2-5	0	0	2	0.001092896
TRBV1	TRBJ2-1	0	0	1	0.000546448
TRBV16	TRBJ1-6	0	0	1	0.000546448
TRBV3-2	TRBJ1-5	0	0	1	0.000546448
TRBV6-7	TRBJ2-1	0	0	1	0.000546448
TRBV8-2	TRBJ1-4	0	0	1	0.000546448

Table 10: Cell Line Identified VJ Rearrangements

Cell Line	Internal	Reference Collection #	Alpha	Beta	Gamma	Delta
			Previously Documented/Known TCR Configurations			
CEM	SE14-2035	ATCC CCL-119	NA	TRBV3-1*01 - TRBD1*01 - TRBJ2-3*01	TRGV3 - TRGJ1/TRGJ2	NA
				TRBJ1-5 - TRBJ2-1 (partial rearrangement)	TRGV4 - TRGJ1/TRGJ2	
				TRBV9 - TRBD2 (partial rearrangement)		
			Observed			
			Alpha (Counts)	Beta (Counts)	Gamma (Counts)	Delta
			TRAV27#1TRAJ40#1 (987)	TRBV3-1#1TRBJ2-3#1 (1087)	TRGV4#2TRGJ2#1 (809)	ND
			TRAV29_DV5#1TRAJ4#1 (765)	TRBV3-2#3TRBJ2-3#1 (512)	TRGV3#2TRGJ2#1 (604)	
			TRAV29_DV5#3TRAJ4#1 (45)	TRBV3-2#3TRBJ2-4#1 (45)	TRGV3#1TRGJ2#1 (228)	
			TRAV27#3TRAJ40#1 (3)	TRBV3-1#1TRBJ2-5#1 (8)	TRGV5#1TRGJ2#1 (106)	
			TRAV27#2TRAJ40#1 (1)	TRBV3-1#1TRBJ2-4#1 (4)	TRGV4#1TRGJ2#1 (1)	
			TRAV8-6#2TRAJ20#1 (1)	TRBV3-1#1TRBJ2-6#1 (2)		
				TRBV3-2#3TRBJ2-6#1 (2)		
				TRBV9#2TRBJ2-1#1 (1)		
			Previously Documented/Known TCR Configurations			
Jurkat	SE14-2033	DSMZ ACC-282	TRAV8-4 - TRAJ3	TRBV12-3 - TRBJ1-2 (partial rearrangement)	TRGV8-TRGJ1/TRGJ2	NA
					TRGV11-TRGJ1/TRGJ2	
			Observed			
			TRAV8-4#6TRAJ3#1 (1000)	TRBV12-4#1TRBJ1-2#1 (608)	TRGV8#1TRGJ2#1 (545)	ND
			TRAV8-4#2TRAJ3#1 (118)	TRBV12-4#2TRBJ1-2#1 (137)	TRGV11#1TRGJ1#1 (272)	
			TRAV12-3#2TRAJ26#1 (16)	TRBV12-3#1TRBJ1-2#1 (16)	TRGV11#2TRGJ1#1 (202)	
			TRAV17#1TRAJ24#2 (7)		TRGV11#1TRGJ2#1 (12)	
			TRAV17#1TRAJ16#1 (4)		TRGV11#2TRGJ2#1 (1)	
			TRAV17#1TRAJ29#1 (3)			
			TRAV14_DV4#2TRAJ24#2 (2)			
			TRAV16#1TRAJ29#1 (1)			
			TRAV17#1TRAJ32#1 (1)			
			TRAV29_DV5#1TRAJ4#1 (1)			
			TRAV9-2#1TRAJ29#1 (1)			
			Previously Documented/Known TCR Configurations			
MOLT4	SE14-2034	ATCC CRL-1582	NA	TRBV20-1*01 - TRBD2*01 - TRBJ2-1*01	TRGV2 - TRGJP1	NA
				TRBV10-3 - TRBD1*01 - TRBJ2-5	TRGV2 - TRGJP2	
			Observed			
			TRAV1-1#1TRAJ33#1 (799)	TRBV20-1#1TRBJ2-1#1 (937)	TRGV2#1TRGJP2#1 (524)	ND
			TRAV1-1#1TRAJ24#2 (621)	TRBV10-3#2TRBJ2-5#1 (724)	TRGV2#2TRGJP1#1 (496)	
			TRAV1-1#2TRAJ24#2 (79)	TRBV20_OR9-2#3TRBJ2-1#1 (384)	TRGV8#1TRGJP1#1 (1)	
			TRAV1-1#2TRAJ33#1 (1)	TRBV10-3#2TRBJ2-6#1 (91)		

				TRBV20-1#7TRBJ2-1#1 (3)		
				TRBV20_OR9-2#3TRBJ2-2#1 (2)		
				TRBV20-1#1TRBJ2-2#1 (1)		
				TRBV20-1#3TRBJ2-1#1 (1)		
			Previously Documented/Known TCR Configurations			
SUPT1	SE14-2005	ATCC CRL-1942	NA	TRBV9*01 - TRBD2*01 - TRVJ2-1*01	TRGV3 - TRGJ1/TRGJ2	NA
					TRGV4 - TRGJ1/TRGJ2	
			Observed			
			TRAV1-1#1TRAJ12#1 (1110)	TRBV9#2TRBJ2-1#1 (971)	TRGV3#2TRGJ2#1 (683)	ND
			TRAV1-1#2TRAJ8#1 (836)	TRBV9#1TRBJ2-1#1 (137)	TRGV4#1TRGJ2#1 (449)	
			TRAV1-1#1TRAJ8#1 (263)	TRBV9#2TRBJ2-2#1 (9)	TRGV4#2TRGJ2#1 (367)	
			TRAV1-1#2TRAJ12#1 (4)	TRBV5-3#1TRBJ2-5#1 (8)	TRGV3#1TRGJ2#1 (198)	
			TRAV29_DV5#1TRAJ26#1 (3)	TRBV5-3#2TRBJ2-5#1 (4)	TRGV5P#2TRGJ2#1 (156)	
			TRAV8-4#6TRAJ3#1 (1)	TRBV7-2#4TRBJ2-7#1 (4)		
				TRBV5-3#1TRBJ2-3#1 (2)		
				TRBV9#2TRBJ2-2P#1 (2)		
				TRBV6-3#1TRBJ2-5#1 (1)		
				TRBV7-2#4TRBJ2-2#1 (1)		

Table cell colors (green: alpha, blue/purple: beta, red/orange: gamma) correspond to previously reported unique VJ TCR configurations compiled at the following IMGT location: http://www.imgt.org/IMGTrepertoire/Probes/Rearrangements%20and%20junctions/human/Hu_TRrea.html

Table 11.1: Sample summary with beta VJ clonality scores

sample	clonality.score.beta	BIOMED.beta	capTCRseq.beta	VJ.counts.beta	max.v.beta	max.j.beta	max.clone.prop.beta
A037	0.00	NA	NA	613	TRBV20-1	TRBJ2-1	0.01
L2D8	0.98	NA	NA	1178	TRBV7-8	TRBJ1-6	0.98
M36-EZM	0.02	NA	NA	122	TRBV5-4, TRBV5-5, TRBV5-6, TRBV5-7, TRBV5-8	TRBJ2-2P	0.07
M36-TIL2-1E7P3	0.02	NA	NA	1761	TRBV2	TRBJ2-1	0.08
OV7-TIL2	0.11	NA	NA	2176	TRBV7-8	TRBJ2-5	0.31
CEM	0.96	NA	NA	1635	TRBV9	TRBJ2-1	0.97
Jurkat	0.97	NA	NA	1099	TRBV12-3, TRBV12-4	TRBJ1-2	0.98
MOLT4	0.30	NA	NA	3147	TRBV20-1	TRBJ2-1	0.63
SUPT1	0.99	NA	NA	2143	TRBV3-1	TRBJ2-3	0.99
STIM1-CY3	0.10	NA	NA	1764	TRBV9	TRBJ2-3	0.28
A037_CD3_1S	0.00	NA	NA	3665	TRBV25-1	TRBJ2-1	0.01
A037_PBMC_1S	0.01	NA	NA	592	TRBV6-2, TRBV6-3	TRBJ2-5	0.02
A037_PBMC_TCR_A	0.02	NA	NA	100	TRBV5-4, TRBV5-8	TRBJ1-6	0.11
A037_PBMC_TCR_B	0.02	NA	NA	828	TRBV20-1	TRBJ2-3	0.05
A037_PBMC_TCR_D	0.02	NA	NA	208	TRBV20-1	TRBJ1-6	0.04
A037_PBMC_TCR_E	0.00	NA	NA	2049	TRBV6-2, TRBV6-3	TRBJ2-5	0.01
A037_PBMC_TCR_F	0.00	NA	NA	1637	TRBV24-1	TRBJ1-6	0.02
A037_PBMC_TCR_G	0.02	NA	NA	198	TRBV6-1	TRBJ2-1	0.12
A037_PBMC_TCR_H	0.01	NA	NA	1107	TRBV6-2, TRBV6-3	TRBJ2-5	0.03
A037_PBMC_TCR_J	0.04	NA	NA	152	TRBV10-2	TRBJ2-7	0.06
A037_PBMC_TCR_K	0.01	NA	NA	171	TRBV5-4, TRBV5-5, TRBV5-7, TRBV5-8	TRBJ2-2P	0.02
A037_PBMC_TCR_L	0.01	NA	NA	111	TRBV6-2, TRBV6-3	TRBJ2-5	0.03
16_01_A037_PBMC_TCR_F	0.01	NA	NA	331	TRBV7-6, TRBV7-7	TRBJ1-6	0.04
16_01_A037_PBMC_TCR_H	0.00	NA	NA	720	TRBV6-1	TRBJ2-4	0.02
16_11_A037_PBMC_TCR_VJ	0.04	NA	NA	136	TRBV7-6, TRBV7-7, TRBV3-2, TRBV5-6	TRBJ1-3	0.08
A037_PBMC_TCR-JV	0.01	NA	NA	1830	TRBV6-2, TRBV6-3	TRBJ2-5	0.02
H128_PBMC_TCR-JV	0.07	NA	NA	5134	TRBV11-3	TRBJ2-3	0.10
H129_PBMC_TCR-JV	0.02	NA	NA	2851	TRBV19	TRBJ1-3	0.03
H130_PBMC_TCR-JV	0.02	NA	NA	3908	TRBV6-1	TRBJ1-2	0.07
H131_PBMC_TCR-JV	0.01	NA	NA	2356	TRBV27	TRBJ1-3	0.02

H132_PBMC_TCR-JV	0.00	NA	NA	3808	TRBV7-3	TRBJ2-7	0.02
H133_PBMC_TCR-JV	0.01	NA	NA	5440	TRBV19	TRBJ1-3	0.01
invivoscribe_neg	0.00	NA	NA	110717	TRBV14	TRBJ1-1	0.00
invivoscribe_pos	0.21	NA	NA	201085	TRBV12-4, TRBV12-3	TRBJ1-2	0.22
invivoscribe_A037	0.01	NA	NA	149538	TRBV3-1, TRBV3-2	TRBJ2-1	0.01
invivoscribe_H128	0.01	NA	NA	555110	TRBV6-1	TRBJ1-1	0.04
invivoscribe_H129	0.00	NA	NA	113651	TRBV19	TRBJ1-3	0.01
invivoscribe_H130	0.05	NA	NA	171257	TRBV6-1	TRBJ1-2	0.06
invivoscribe_H131	0.00	NA	NA	172397	TRBV14	TRBJ1-1	0.01
invivoscribe_H132	0.00	NA	NA	470619	TRBV14	TRBJ2-1	0.01
invivoscribe_H133	0.00	NA	NA	323157	TRBV2	TRBJ1-1	0.01
TCL-063	0.14	Clonal	clonal	151	TRBV5-1	TRBJ2-5	0.19
TCL-019	0.27	Clonal	clonal	3092	TRBV13	TRBJ2-2	0.33
TCL-034	0.36	Clonal	clonal	1784	TRBV25-1	TRBJ2-7	0.41
TCL-022	0.37	Clonal	clonal	1090	TRBV7-9	TRBJ2-5	0.42
TCL-020	0.43	Clonal	clonal	1784	TRBV12-4, TRBV12-3	TRBJ2-3	0.47
TCL-036	0.37	Clonal	clonal	4773	TRBV6-3, TRBV6-2	TRBJ2-7	0.50
TCL-031	0.33	Clonal	clonal	3	TRBV6-6	TRBJ1-5	0.67
TCL-053	0.81	Clonal	clonal	262	TRBV20-1	TRBJ2-7	0.82
TCL-046	0.89	Clonal	clonal	504	TRBV6-6	TRBJ1-2	0.90
TCL-007	0.03	Clonal	polyclonal	235	TRBV7-6	TRBJ1-1	0.10
TCL-050	0.25	Clonal	polyclonal	219	TRBV6-5	TRBJ1-1	0.34
TCL-030	0.33	Clonal	polyclonal	232	TRBV6-6	TRBJ1-3	0.36
TCL-012	0.23	Polyclonal	clonal	563	TRBV30	TRBJ2-3	0.30
TCL-039	0.11	Clonal	clonal	114	TRBV6-2, TRBV6-3	TRBJ2-7	0.21
TCL-035	0.00	Clonal	polyclonal	1000	TRBV20-1	TRBJ2-1	0.02
TCL-004	0.01	Clonal	polyclonal	318	TRBV4-1	TRBJ2-2	0.06
TCL-027	0.01	Clonal	polyclonal	636	TRBV19	TRBJ2-7	0.07
TCL-051	0.07	Clonal	polyclonal	100	TRBV20-1	TRBJ2-3	0.15
TCL-005	0.07	Clonal	polyclonal	165	TRBV7-3	TRBJ2-3	0.18
TCL-059	0.07	Polyclonal	polyclonal	952	TRBV2	TRBJ1-2	0.11
TCL-042	0.06	Polyclonal	polyclonal	190	TRBV3-1, TRBV3-2	TRBJ1-1	0.15
TCL-052	0.00	ND	polyclonal	3532	TRBV11-1, TRBV11-3, TRBV11-2	TRBJ2-1	0.01

TCL-032	0.03	ND	clonal	298	TRBV10-1	TRBJ2-1	0.08
TCL-037	0.00	ND	polyclonal	436	TRBV7-3	TRBJ2-3	0.04
TCL-049	0.02	Clonal	polyclonal	755	TRBV12-3, TRBV12-4	TRBJ2-7	0.05
TCL-038	0.04	Clonal	polyclonal	476	TRBV2	TRBJ1-1	0.07
TCL-041	0.15	Polyclonal	clonal	1731	TRBV7-8	TRBJ1-4	0.20
TCL-017	0.01	Polyclonal	polyclonal	114	TRBV6-7	TRBJ1-5	0.05
TCL-024	0.01	Polyclonal	polyclonal	572	TRBV7-3	TRBJ2-3	0.05
TCL-010	0.05	Polyclonal	polyclonal	1281	TRBV6-5	TRBJ2-1	0.10
TCL-057	0.00	Clonal	polyclonal	981	TRBV6-5	TRBJ2-3	0.02
TCL-001	0.01	Clonal	polyclonal	1288	TRBV2	TRBJ2-2	0.03
TCL-026	0.04	Clonal	polyclonal	618	TRBV7-6, TRBV7-7	TRBJ1-3	0.07
TCL-045	0.01	Clonal	polyclonal	150	TRBV7-6	TRBJ1-1	0.09
TCL-013	0.06	Clonal	polyclonal	1047	TRBV19	TRBJ2-1	0.15
TCL-008	0.03	Polyclonal	clonal	1021	TRBV11-2	TRBJ1-4	0.06
TCL-021	0.00	Polyclonal	polyclonal	3165	TRBV11-2	TRBJ1-1	0.01
TCL-033	0.00	Polyclonal	polyclonal	623	TRBV28	TRBJ2-2	0.01
TCL-009	0.00	Polyclonal	polyclonal	737	TRBV7-6, TRBV7-7	TRBJ1-3	0.01
TCL-015	0.00	Polyclonal	polyclonal	547	TRBV6-4, TRBV7-6, TRBV7-7	TRBJ1-3	0.02
TCL-064	0.00	Polyclonal	polyclonal	979	TRBV11-2	TRBJ1-2	0.02
TCL-029	0.00	Polyclonal	polyclonal	728	TRBV20-1	TRBJ2-3	0.02
TCL-018	0.00	Polyclonal	polyclonal	410	TRBV29-1	TRBJ2-7	0.02
TCL-003	0.00	Polyclonal	polyclonal	1271	TRBV6-5	TRBJ1-1	0.02
TCL-060	0.02	Polyclonal	polyclonal	828	TRBV6-4	TRBJ1-3	0.03
TCL-025	0.01	Polyclonal	polyclonal	252	TRBV27	TRBJ1-3	0.03
TCL-055	0.01	Polyclonal	polyclonal	653	TRBV11-2, TRBV11-1	TRBJ2-3	0.03
TCL-040	0.01	Polyclonal	polyclonal	192	TRBV6-5, TRBV6-2, TRBV6-3, TRBV6-6, TRBV6-8	TRBJ1-5	0.04
TCL-002	0.01	Polyclonal	polyclonal	370	TRBV7-3	TRBJ1-2	0.04
TCL-048	0.01	Polyclonal	polyclonal	466	TRBV6-4	TRBJ2-3	0.04
TCL-043	0.00	Polyclonal	polyclonal	291	TRBV4-2	TRBJ2-4	0.04
TCL-056	0.00	Polyclonal	polyclonal	300	TRBV15	TRBJ2-1	0.05
TCL-054	0.02	Polyclonal	polyclonal	339	TRBV20-1	TRBJ2-5	0.05
TCL-062	0.03	Polyclonal	polyclonal	375	TRBV28	TRBJ2-7	0.05
TCL-014	0.01	Polyclonal	polyclonal	185	TRBV20-1	TRBJ2-5	0.05

TCL-058	0.01	Polyclonal	polyclonal	246	TRBV20-1	TRBJ2-1	0.06
TCL-016	0.02	Polyclonal	polyclonal	337	TRBV27	TRBJ1-3	0.06
TCL-028	0.01	Polyclonal	polyclonal	79	TRBV2	TRBJ1-2	0.06
TCL-047	0.02	Polyclonal	polyclonal	369	TRBV14	TRBJ1-3	0.07
TCL-044	0.03	Polyclonal	polyclonal	431	TRBV19	TRBJ1-1	0.08
TCL-023	0.03	Polyclonal	polyclonal	216	TRBV6-4	TRBJ1-3	0.10
TCL-061	0.02	Polyclonal	polyclonal	163	TRBV24-1	TRBJ1-6	0.10
TCL-006	0.05	Polyclonal	polyclonal	39	TRBV9	TRBJ1-1	0.15
TCL-011	0.05	Polyclonal	polyclonal	93	TRBV27	TRBJ1-3	0.19

Table 11.2: Sample summary with gamma VJ clonality scores

sample	clonality.score.gamma	BIOMED.gamma	capTCRseq.gamma	VJ.counts.gamma	max.v.gamma	max.j.gamma	max.clone.prop.gamma
A037	0.003952569	NA	NA	759	TRGV4	TRGJ1, TRGJ2	0.013175231
L2D8	0.985828167	NA	NA	1129	TRGV4	TRGJ2, TRGJ1	0.991142604
M36-EZM	0.008474576	NA	NA	118	TRGV3, TRGV5	TRGJ1, TRGJ2	0.050847458
M36-TIL2-1E7P3	0.022125813	NA	NA	2305	TRGV9	TRGJP	0.073752711
OV7-TIL2	0.120605469	NA	NA	2048	TRGV10	TRGJ2, TRGJ1	0.3046875
SE14-2005	0.439915966	NA	NA	2380	TRGV3	TRGJ1, TRGJ2	0.555042017
SE14-2033	0.094612352	NA	NA	1522	TRGV8	TRGJ1, TRGJ2	0.547306176
SE14-2034	0.052496799	NA	NA	1562	TRGV2	TRGJP1	0.526248399
SE14-2035	0.484712901	NA	NA	2682	TRGV3	TRGJ2, TRGJ1	0.514541387
STIM1-CY3	0.113919544	NA	NA	2809	TRGV9	TRGJ1, TRGJ2	0.198291207
A037_CD3_1S	0.000510117	NA	NA	5881	TRGV3, TRGV5	TRGJ1, TRGJ2	0.00374086
A037_PBMC_1S	0.007246377	NA	NA	828	TRGV9	TRGJ1, TRGJ2	0.024154589
A037_PBMC_TCR_A	0.073170732	NA	NA	41	TRGV8	TRGJP2	0.268292683
A037_PBMC_TCR_B	0.00618238	NA	NA	647	TRGV2, TRGV3, TRGV5, TRGV5P	TRGJ1, TRGJ2	0.043276662
A037_PBMC_TCR_D	0.009009009	NA	NA	111	TRGV7	TRGJ1, TRGJ2	0.036036036
A037_PBMC_TCR_E	0.004521964	NA	NA	3096	TRGV8	TRGJ2, TRGJ1	0.018410853
A037_PBMC_TCR_F	0.005059022	NA	NA	2965	TRGV9	TRGJ1, TRGJ2	0.019224283
A037_PBMC_TCR_G	0.077922078	NA	NA	77	TRGV2	TRGJ1, TRGJ2	0.220779221
A037_PBMC_TCR_H	0.004545455	NA	NA	220	TRGV10	TRGJ1, TRGJ2	0.045454545
A037_PBMC_TCR_J	0.007518797	NA	NA	133	TRGV10	TRGJP1	0.030075188
A037_PBMC_TCR_K	0.015151515	NA	NA	198	TRGV9	TRGJ1, TRGJ2	0.035353535
A037_PBMC_TCR_L	0.008064516	NA	NA	124	TRGV9	TRGJ1, TRGJ2	0.024193548
16_01_A037_PBMC_TCR_F	0.003395586	NA	NA	589	TRGV2	TRGJ1, TRGJ2	0.020373514
16_01_A037_PBMC_TCR_H	0.005428882	NA	NA	921	TRGV2	TRGJ1, TRGJ2	0.022801303
16_11_A037_PBMC_TCR_VJ	0.021875	NA	NA	320	TRGV9	TRGJ1, TRGJ2	0.05
A037_PBMC_TCR-JV	0.004919323	NA	NA	5082	TRGV2	TRGJ1, TRGJ2	0.014364423
H128_PBMC_TCR-JV	0.029886611	NA	NA	13317	TRGV9	TRGJ1, TRGJ2	0.064278741
H129_PBMC_TCR-JV	0.008526512	NA	NA	7506	TRGV2	TRGJ2, TRGJ1	0.016786571
H130_PBMC_TCR-JV	0.017524131	NA	NA	10671	TRGV2	TRGJ1, TRGJ2	0.035235686
H131_PBMC_TCR-JV	0.002162702	NA	NA	6011	TRGV3	TRGJ1, TRGJ2	0.006488105
H132_PBMC_TCR-JV	0.006557377	NA	NA	9455	TRGV4	TRGJ1, TRGJ2	0.013749339

H133_PBMC_TCR-JV	0.003499863	NA	NA	14572	TRGV10	TRGJP1	0.006862476
invivoscribe_neg	NA	NA	NA	NA	NA	NA	NA
invivoscribe_pos	NA	NA	NA	NA	NA	NA	NA
invivoscribe_A037	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H128	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H129	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H130	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H131	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H132	NA	NA	NA	NA	NA	NA	NA
invivoscribe_H133	NA	NA	NA	NA	NA	NA	NA
TCL-063	0.14	Clonal	clonal	334	TRGV4	TRGJ2, TRGJ1	0.16
TCL-019	0.22	Clonal	clonal	3579	TRGV7	TRGJ1, TRGJ2	0.32
TCL-034	0.17	Clonal	clonal	3478	TRGV10	TRGJP2	0.23
TCL-022	0.20	Clonal	clonal	1825	TRGV4	TRGJ2, TRGJ1	0.24
TCL-020	0.50	Clonal	clonal	1921	TRGV9	TRGJ1, TRGJ2	0.50
TCL-036	0.39	Clonal	clonal	4556	TRGV8	TRGJ2, TRGJ1	0.41
TCL-031	0.98	Clonal	clonal	463	TRGV5	TRGJ1, TRGJ2	0.99
TCL-053	0.39	Clonal	clonal	627	TRGV2	TRGJ1, TRGJ2	0.45
TCL-046	0.46	Clonal	clonal	908	TRGV4	TRGJP2	0.50
TCL-007	0.39	Clonal	clonal	2768	TRGV5	TRGJ2, TRGJ1	0.507586705
TCL-050	0.18	Clonal	clonal	398	TRGV10	TRGJP1	0.23
TCL-030	0.05	Clonal	clonal	477	TRGV2	TRGJ1, TRGJ2	0.12
TCL-012	0.27	Clonal	clonal	2707	TRGV3	TRGJ2, TRGJ1	0.528629479
TCL-039	0.03	Clonal	polyclonal	256	TRGV10	TRGJ1, TRGJ2	0.09
TCL-035	0.04	Clonal	polyclonal	1871	TRGV9	TRGJ1, TRGJ2	0.09
TCL-004	0.03	Clonal	polyclonal	186	TRGV10	TRGJP1	0.091397849
TCL-027	0.01	Clonal	polyclonal	1239	TRGV9	TRGJ1, TRGJ2	0.05
TCL-051	0.07	Clonal	polyclonal	81	TRGV2	TRGJP2	0.15
TCL-005	0.09	Clonal	polyclonal	220	TRGV9	TRGJ1, TRGJ2	0.140909091
TCL-059	0.01	Clonal	polyclonal	1535	TRGV10	TRGJP1	0.04
TCL-042	0.06	Clonal	polyclonal	327	TRGV8	TRGJ1, TRGJ2	0.16
TCL-052	0.00	ND	clonal	6168	TRGV10	TRGJ1, TRGJ2	0.01
TCL-032	0.01	ND	polyclonal	446	TRGV11	TRGJ1, TRGJ2	0.04
TCL-037	0.01	ND	polyclonal	989	TRGV4	TRGJ1, TRGJ2	0.02
TCL-049	0.02	Polyclonal	clonal	1418	TRGV4	TRGJ1, TRGJ2	0.06

TCL-038	0.03	Polyclonal	clonal	851	TRGV3	TRGJ1, TRGJ2	0.08
TCL-041	0.15	Polyclonal	clonal	2265	TRGV10	TRGJ1, TRGJ2	0.21
TCL-017	0.01	Polyclonal	clonal	181	TRGV4	TRGJ1, TRGJ2	0.06
TCL-024	0.01	Polyclonal	clonal	737	TRGV4	TRGJ1, TRGJ2	0.04
TCL-010	0.02	Polyclonal	clonal	2678	TRGV2	TRGJ1, TRGJ2	0.066840926
TCL-057	0.01	Polyclonal	polyclonal	1451	TRGV11	TRGJ1, TRGJ2	0.02
TCL-001	0.00	Polyclonal	polyclonal	1888	TRGV4	TRGJ1, TRGJ2	0.019067797
TCL-026	0.05	Polyclonal	polyclonal	821	TRGV4	TRGJ1, TRGJ2	0.08
TCL-045	0.01	Polyclonal	polyclonal	137	TRGV6	TRGJP1	0.07
TCL-013	0.02	Polyclonal	polyclonal	2341	TRGV3	TRGJ1, TRGJ2	0.08
TCL-008	0.01	Polyclonal	polyclonal	1583	TRGV4	TRGJ1, TRGJ2	0.031585597
TCL-021	0.00	Polyclonal	polyclonal	4230	TRGV4	TRGJ1, TRGJ2	0.01
TCL-033	0.00	Polyclonal	polyclonal	1003	TRGV10	TRGJP1	0.01
TCL-009	0.00	Polyclonal	polyclonal	1112	TRGV8	TRGJ1, TRGJ2	0.013489209
TCL-015	0.00	Polyclonal	polyclonal	1001	TRGV7	TRGJ1, TRGJ2	0.01
TCL-064	0.00	Polyclonal	polyclonal	1703	TRGV4	TRGJ1, TRGJ2	0.01
TCL-029	0.00	Polyclonal	polyclonal	965	TRGV3, TRGV4, TRGV5, TRGV5P, TRGV7	TRGJ1, TRGJ2	0.01
TCL-018	0.00	Polyclonal	polyclonal	679	TRGV3, TRGV5	TRGJ1, TRGJ2	0.01
TCL-003	0.00	Polyclonal	polyclonal	1758	TRGV4	TRGJ1, TRGJ2	0.017064846
TCL-060	0.01	Polyclonal	polyclonal	1656	TRGV8	TRGJP2	0.01
TCL-025	0.01	Polyclonal	polyclonal	500	TRGV3, TRGV5	TRGJ1, TRGJ2	0.02
TCL-055	0.00	Polyclonal	polyclonal	1320	TRGV10	TRGJP1	0.02
TCL-040	0.00	Polyclonal	polyclonal	443	TRGV5, TRGV3	TRGJ1, TRGJ2	0.02
TCL-002	0.01	Polyclonal	polyclonal	744	TRGV3, TRGV5	TRGJ1, TRGJ2	0.025537634
TCL-048	0.00	Polyclonal	polyclonal	815	TRGV2	TRGJ1, TRGJ2	0.02
TCL-043	0.01	Polyclonal	polyclonal	318	TRGV2	TRGJ1, TRGJ2	0.04
TCL-056	0.03	Polyclonal	polyclonal	540	TRGV9	TRGJP	0.07
TCL-054	0.01	Polyclonal	polyclonal	571	TRGV3	TRGJ1, TRGJ2	0.03
TCL-062	0.00	Polyclonal	polyclonal	674	TRGV10	TRGJP1	0.03
TCL-014	0.01	Polyclonal	polyclonal	310	TRGV9	TRGJ1, TRGJ2	0.04
TCL-058	0.01	Polyclonal	polyclonal	307	TRGV11	TRGJP2	0.04
TCL-016	0.01	Polyclonal	polyclonal	594	TRGV4	TRGJ1, TRGJ2	0.03
TCL-028	0.01	Polyclonal	polyclonal	128	TRGV9	TRGJ1, TRGJ2	0.05

TCL-047	0.01	Polyclonal	polyclonal	524	TRGV4	TRGJ1, TRGJ2	0.04
TCL-044	0.03	Polyclonal	polyclonal	694	TRGV2	TRGJ1, TRGJ2	0.06
TCL-023	0.00	Polyclonal	polyclonal	440	TRGV9	TRGJP	0.04
TCL-061	0.03	Polyclonal	polyclonal	184	TRGV2	TRGJP2	0.09
TCL-006	0.08	Polyclonal	polyclonal	26	TRGV2	TRGJ1, TRGJ2	0.192307692
TCL-011	0.05	Polyclonal	polyclonal	275	TRGV10	TRGJ1, TRGJ2	0.090909091

Table 11.3: Sample summaries with MiXCR metrics

sample	Library Input	Total sequencing reads	Successfully aligned reads %	Alignment failed because of absence of V hits %	Alignment failed because of absence of J hits %	Final clonotype count	Reads used in clonotypes, percent of total
A037	100	1662388	2.15	0.2	92.34	1266	0.22
L2D8	100	1431726	2.37	0.19	91.96	132	0.38
M36-EZM	100	1976892	1.97	0.21	92.84	305	0.09
M36-TIL2-1E7P3	100	1369917	2.06	0.14	92.52	686	0.51
OV7-TIL2	100	2054143	2.14	0.18	92.2	491	0.39
CEM	100	1199994	1.5	0.05	93	65	0.59
Jurkat	100	1178175	1.73	0.12	93.14	107	0.38
MOLT4	100	1104126	1.67	0.12	93.29	42	0.62
SUPT1	100	1496898	2.39	0.14	91.32	148	0.6
STIM1-CY3	100	1615241	2.07	0.18	92.16	305	0.49
A037_CD3_1S	100	4000917	2.53	0.2	91.38	6724	0.49
A037_PBMC_1S	100	4062770	1.81	0.19	91.39	1245	0.13
A037_PBMC_TCR_A	100	1793597	0.21	0.06	91.07	46	0.01
A037_PBMC_TCR_B	200	9572076	0.31	0.03	91.33	203	0.03
A037_PBMC_TCR_D	600	11345715	0.14	0.02	91.06	459	0.01
A037_PBMC_TCR_E	800	8026681	1.97	0.02	93.74	2550	0.19
A037_PBMC_TCR_F	1000	12520945	1.12	0.03	92.38	3759	0.11
A037_PBMC_TCR_G	200	10658359	0.11	0.06	90.89	56	0.01
A037_PBMC_TCR_H	600	8222076	0.9	0.03	91.96	993	0.06
A037_PBMC_TCR_J	200	16665729	0.07	0.01	90.77	480	0.01
A037_PBMC_TCR_K	600	8578864	0.15	0.01	91.21	632	0.01
A037_PBMC_TCR_L	1000	20278325	0.06	0.01	90.88	501	0
16_01_A037_PBMC_TCR_F	500	4299090	0.68	0.03	91.88	904	0.06
16_01_A037_PBMC_TCR_H	250	6474282	0.83	0.03	92.25	991	0.07
16_11_A037_PBMC_TCR_VJ	100	1889925	1.74	0.31	89.96	720	0.1
A037_PBMC_TCR-JVH128_PBMC_TCR-JVH129_PBMC_TCR-JVH130_PBMC_TCR-JVH131_PBMC_TCR-JVH132_PBM	513	6296940	2.86	0.44	89.2	7131	0.27
	1490	6775082	3.28	0.41	89.15	12601	0.52
	600	7097646	2.74	0.39	89.19	10078	0.32
	665	7788666	2.69	0.38	89.31	10463	0.37
	695	7857953	2.62	0.38	89.38	9074	0.26
	1550	7031963	3.12	0.44	89	15690	0.44

C_TCR-JV							
H133_PBMC_TCR-JV	675	7127161	3.59	0.46	88.88	17702	0.55
invivoscribe_neg	100	1445109	60.95	0.24	33.6	14682	7.68
invivoscribe_pos	100	2233912	57.36	0.13	37.85	14019	9.01
invivoscribe_A037	100	2161768	57.37	0.1	37.93	9530	6.92
invivoscribe_H128	100	2469927	59.25	0.16	35.3	18612	22.53
invivoscribe_H129	100	1666215	57.92	0.21	36.81	15346	6.83
invivoscribe_H130	100	2559070	59.97	0.13	35.27	12656	6.7
invivoscribe_H131	100	1811878	61.87	0.16	33.36	11088	9.53
invivoscribe_H132	100	2547352	60.26	0.14	34.91	17855	18.51
invivoscribe_H133	100	1629052	59.81	0.18	34.82	18838	19.89
TCL-063	100	3364355	0.75	0.21	90.77	396	0.05
TCL-019	100	5908050	2.3	0.16	91.34	1178	0.25
TCL-034	100	6238274	2.19	0.14	91.45	814	0.21
TCL-022	100	6227072	2.29	0.17	91.5	793	0.16
TCL-020	100	3924635	0.76	0.15	90.76	110	0.24
TCL-036	100	4205728	2.37	0.16	91.08	743	0.41
TCL-031	100	3603354	0.36	0.1	90.69	74	0.04
TCL-053	100	3021812	0.35	0.14	90.77	178	0.05
TCL-046	100	4658895	0.24	0.08	90.75	88	0.05
TCL-007	100	3974363	1.3	0.22	91.56	280	0.14
TCL-050	100	4481688	0.32	0.13	90.72	262	0.03
TCL-030	100	2752939	0.69	0.05	91.04	463	0.06
TCL-012	100	5618429	0.68	0.11	90.96	656	0.11
TCL-039	100	4486676	0.32	0.08	90.78	242	0.02
TCL-035	100	4746431	2.11	0.31	91.18	1202	0.19
TCL-004	100	3518652	1.25	0.19	91.75	213	0.06
TCL-051	100	5754173	0.29	0.07	90.68	172	0.01
TCL-005	100	4397521	1.28	0.19	91.81	214	0.06
TCL-059	100	4592030	2.11	0.27	91.34	923	0.17
TCL-042	100	4303321	1.25	0.19	91.61	218	0.06
TCL-052	100	7501730	1.58	0.09	91.4	3138	0.29
TCL-032	100	4350896	0.7	0.04	91.35	536	0.05
TCL-037	100	5525248	1.29	0.16	91.73	481	0.08
TCL-049	100	3713745	1.27	0.17	91.61	647	0.13
TCL-038	100	5344892	2.19	0.2	91.58	546	0.12
TCL-041	100	4990390	2.21	0.2	91.35	871	0.2
TCL-017	100	3619902	0.34	0.12	90.78	252	0.02
TCL-024	100	5507224	1.33	0.14	91.85	480	0.08
TCL-010	100	4068539	1.22	0.17	91.61	648	0.19

TCL-057	100	5056319	2.13	0.28	91.24	1169	0.17
TCL-001	100	3752739	1.72	0.04	91.55	798	0.19
TCL-026	100	6906974	2.24	0.17	91.58	651	0.12
TCL-045	100	4275809	2.14	0.34	91.4	237	0.09
TCL-013	100	5620960	0.67	0.13	90.69	1055	0.11
TCL-008	100	6682740	1.39	0.13	91.71	694	0.12
TCL-021	100	6578214	2.13	0.15	91.52	2579	0.26
TCL-033	100	3503115	0.77	0.04	90.95	1290	0.1
TCL-009	100	4700631	0.76	0.06	90.9	1400	0.08
TCL-015	100	4487351	0.7	0.08	90.87	1350	0.08
TCL-064	100	5237019	2.09	0.3	91.35	1172	0.16
TCL-029	100	4170770	0.78	0.07	90.79	1436	0.09
TCL-018	100	5351255	0.77	0.08	91	1044	0.05
TCL-003	100	4697461	1.51	0.06	91.77	886	0.15
TCL-060	100	4605546	2.14	0.29	91.13	1109	0.17
TCL-025	100	4866375	0.69	0.06	90.62	785	0.05
TCL-055	100	5009935	1.24	0.16	91.7	702	0.1
TCL-040	100	4491531	0.33	0.09	90.69	511	0.03
TCL-002	100	3891245	1.24	0.2	91.69	469	0.09
TCL-048	100	5379058	2.14	0.27	91.36	609	0.12
TCL-043	100	5232483	2.21	0.21	91.61	379	0.1
TCL-056	100	5528712	2.15	0.31	91.22	421	0.11
TCL-054	100	5491623	2.15	0.33	91.2	452	0.11
TCL-062	100	3354742	0.7	0.13	90.77	867	0.07
TCL-014	100	3848069	0.83	0.14	91.21	228	0.04
TCL-058	100	4919699	1.28	0.2	91.78	270	0.06
TCL-016	100	5073779	1.3	0.18	91.62	542	0.08
TCL-028	100	5931733	0.32	0.09	90.72	252	0.02
TCL-047	100	4969966	2.09	0.38	91.1	396	0.11
TCL-044	100	6164907	2.15	0.25	91.59	509	0.11
TCL-023	100	5073756	1.31	0.21	91.76	290	0.07
TCL-061	100	5599126	2.16	0.3	91.26	271	0.1
TCL-006	100	4787256	0.33	0.08	90.86	116	0.01
TCL-011	100	2264111	1.24	0.22	91.75	188	0.07