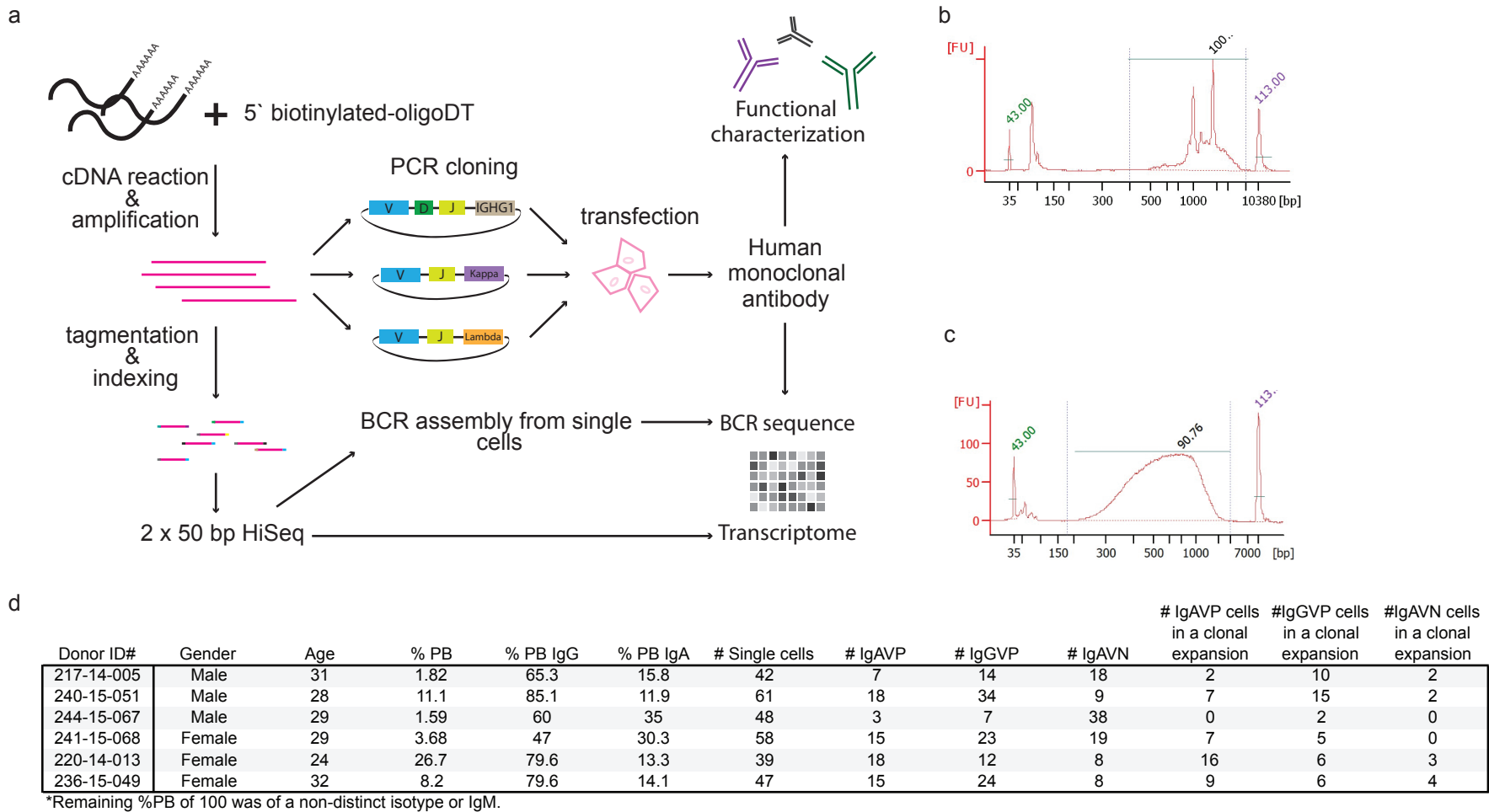
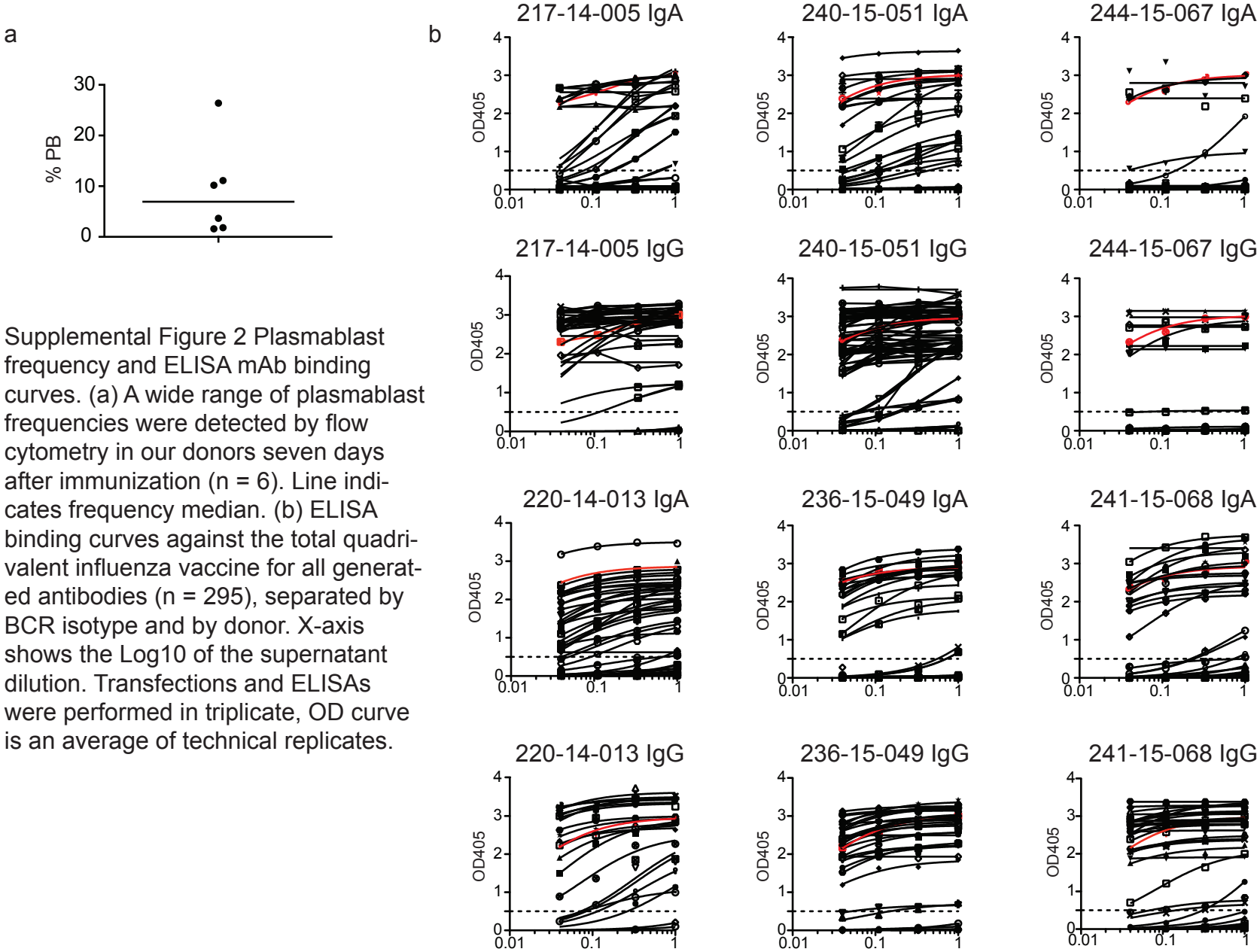


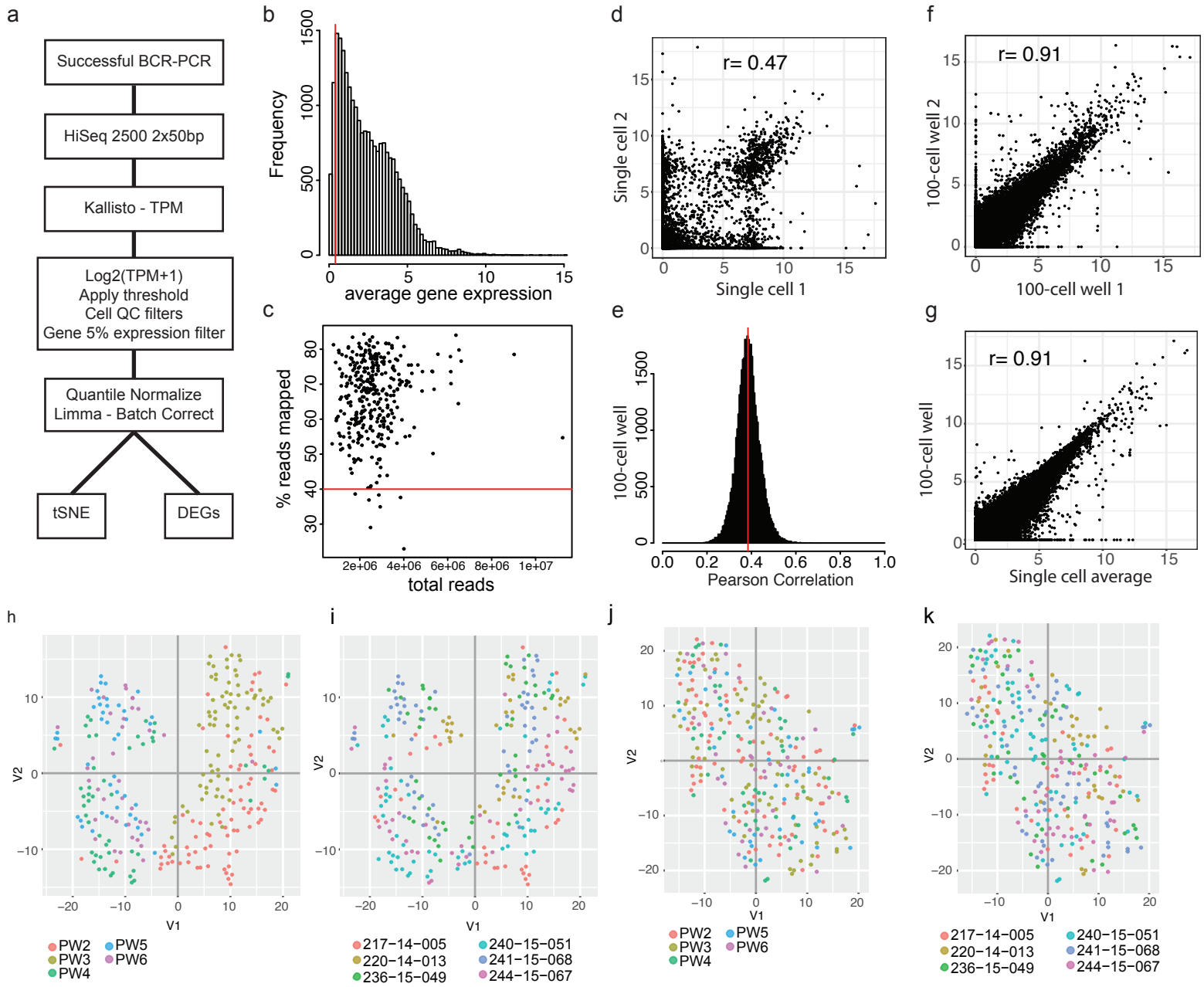
Supplemental Figure 1



Supplemental Figure 1 Spec-seq method details. (a) Spec-seq allows for simultaneous analysis of B cell receptor sequence, receptor binding properties and transcriptional profile from a single cell. This is accomplished by performing PCRs, to amplify the BCR, on an aliquot of full-length amplified cDNA from each cell. The cDNA is generated via reverse transcription from total cell mRNA captured by a poly-adenenlated oligomer, and amplified with 22 additional PCR cycles. The amplified V(D)J sequence is cloned into an expres-sion vector, matched heavy and light chains are transfected into HEK293A cells and a fully human monoclonal antibody is generated. Indexed libraries are generated from 0.5 ng of the remaining cDNA prior to next generation sequencing. (b) Representative Agilent bioanalyzer high sensitivity chip results from the chosen 22 cDNA amplification cycle number. (c) Representative Agilent chip results after DNA tagmentation. All plasmablast traces contain the two sharp amplicon peaks suggesting extremely high expression of certain transcripts, the smaller of which we attribute to the BCR itself. (d) Donor information.

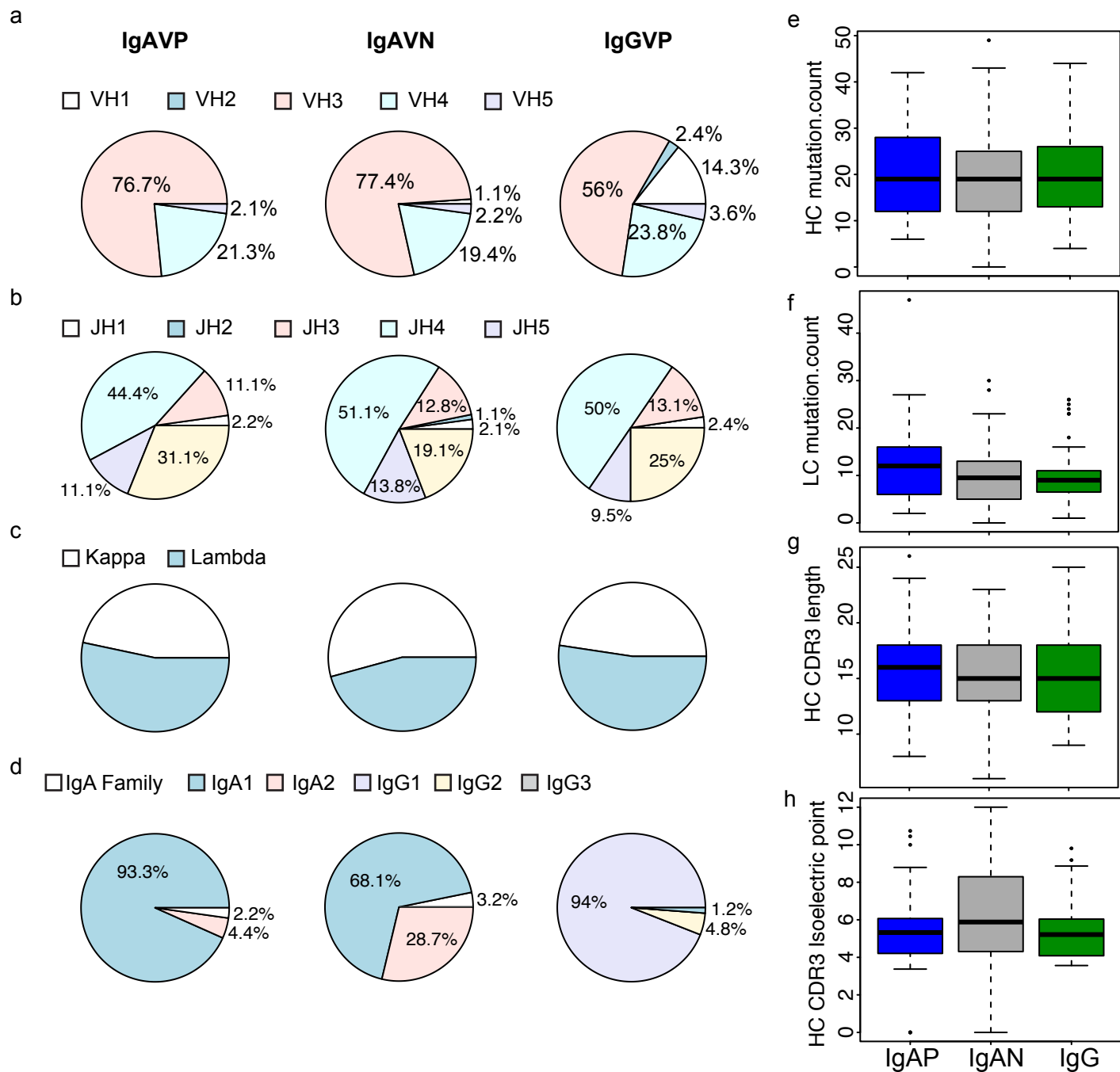


Supplemental Figure 3



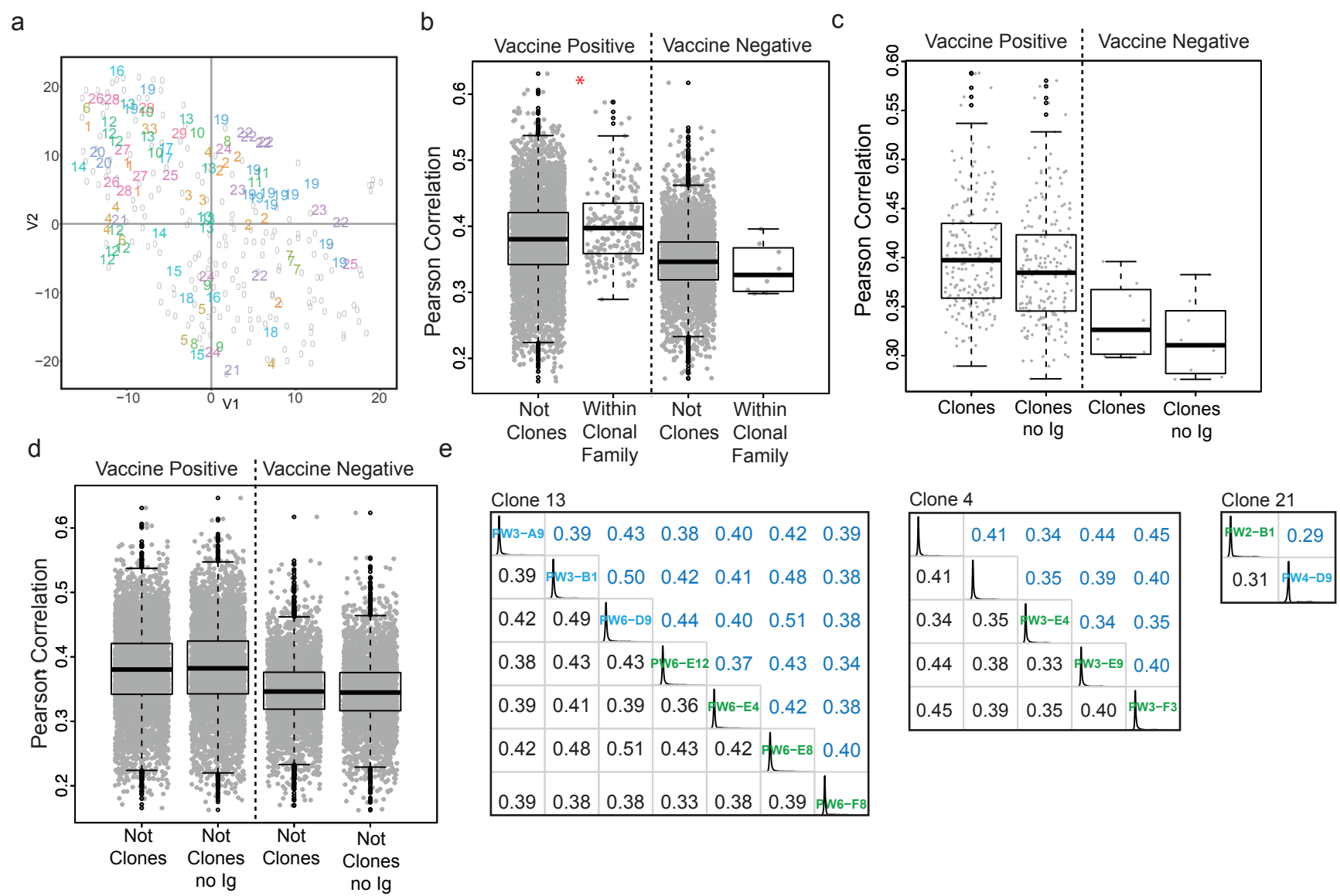
Supplemental Figure 3 Analysis pipeline, filters and quality control. (a) Schematic of the overall data analysis pipeline. (b) Histogram of the average gene expression across all cells, obtained after excluding zeros. Red line indicates the threshold of detection, all values below this threshold were set to zero. (c) Any cell with less than 40% transcripts mapping to the human transcriptome were excluded from analysis. (d) The Pearson correlation of two single cells. (e) A histogram of all single cell pairwise correlations, red line at median correlation. (f) The Pearson correlation between two 100-cell wells is 0.91, which is the same as when the average of all single cells is plotted against a 100-cell well (g). This suggests that although single cells have varying levels of heterogeneity their composite profile still captures the population profile. (h) tSNE of data before batch correction labeled by experiment (PW2-6) and shows a strong experimental batch effect likely due to the enzyme and oligo modifications between PW2&3 and PW4-6 ($n = 295$). (i) This same tSNE projection colored by donor ID reveals additional undesired clustering. The tSNE plot colored by experiment (j) and donor ID (k) after limma is used to remove the variability associated with these variables.

Supplemental Figure 4



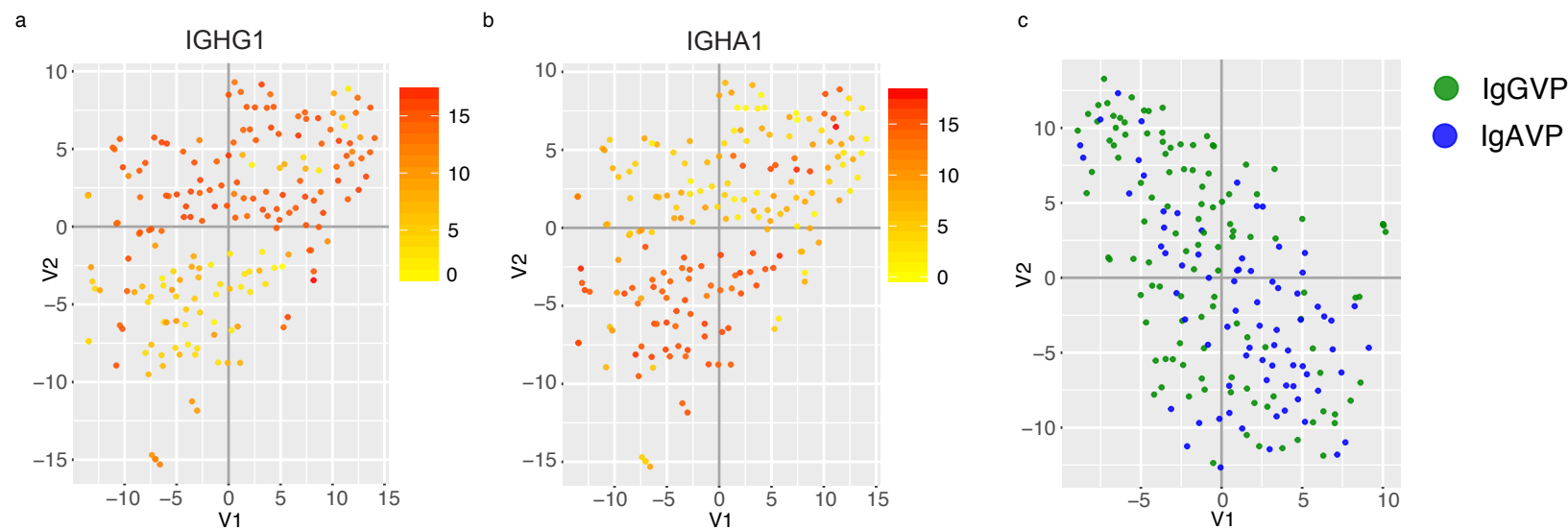
Supplemental Figure 4 Repertoire analysis without clonal expansions. (a) Shows V gene family usage (p-value = 0.003, after exclusion of VH1 p-value = 0.157, Chi-squared), (b) J gene usage, (c) light chain constant domain usage and (d) heavy chain isotype across the three populations (p-value = 0.003, Chi-squared performed between IgAVP and IgAVN populations only). (e) Shows the number of heavy chain mutations, (f) light chain mutations (p-value = 0.018, one-way ANOVA), (g) the heavy chain CDR3 length and (h) sequence predicted CDR3 isoelectric point. Median value is displayed in box plots.

Supplemental Figure 5



Supplemental Figure 5 Further exploration of clonal family transcriptomes. (a) tSNE projection of all three populations (n = 295) with clonal families designated with numbers 1-29, and unrelated B cells indicated with grey zeros. (b) Pearson correlation coefficients were calculated for all pairwise comparisons of unrelated B cells and between clonal B cells within the same clonal family, for both the vaccine-positive (clone n = 87, not clonal n = 108) and vaccine-negative (clonal n = 13, not clonal n = 87) compartments. Box plots display median correlation (***) p-value < 0.046, Welch's one-sided t-test; Online methods). (c) Pairwise correlations of within vaccine positive (clonal n = 87), or vaccine negative (clonal n = 13), clonal families before and after exclusion of Ig genes. (d) Pairwise correlations of unrelated vaccine positive (n = 108) or vaccine negative (n = 87) plasmablasts before and after removal of Ig genes. (e) Correlation matrices for the three clones that span the IgGVP and IgAVP compartment. The name of the IgGVP cells are green, and IgAVP are blue. The blue correlation values include all genes, whereas the black correlations are after removal of the Ig constant domain genes.

Supplemental Figure 6

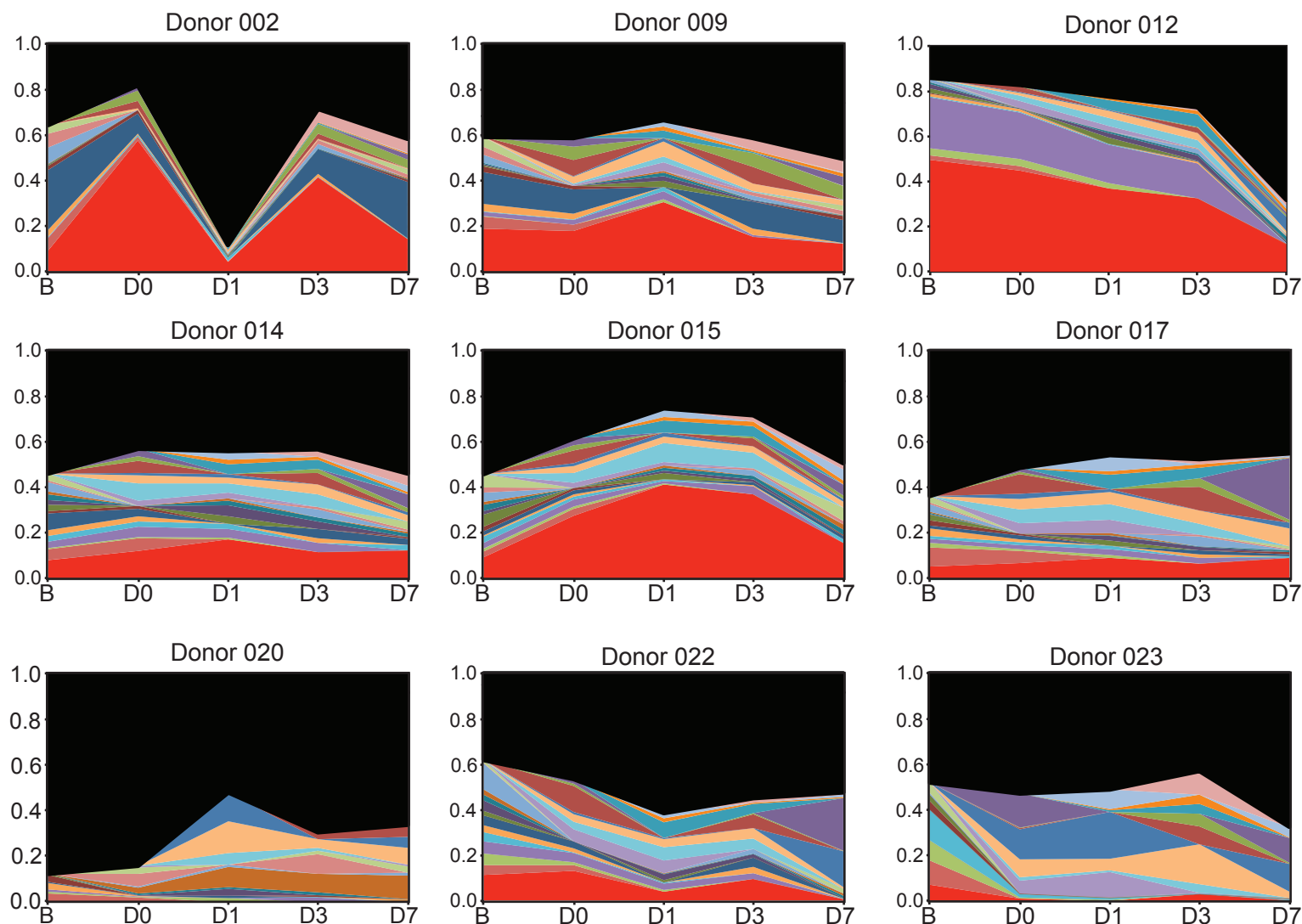


Supplemental Figure 6 Further exploration of the impact of BCR genes on vaccine-positive plasmablast clustering.

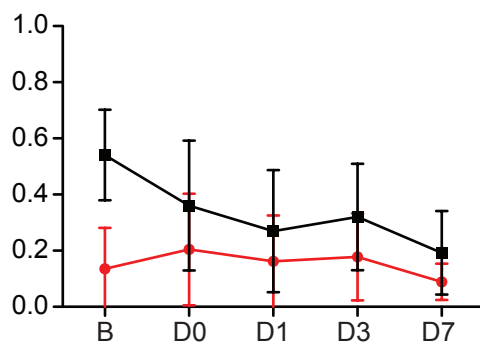
(a) tSNE projection of all vaccine positive cells (n = 195) colored by IGHG1 gene expression levels, (b) and by IGHA1 gene expression levels. (c) tSNE projection of the vaccine-positive cells after exclusion of all Ig genes.

Supplemental Figure 7

a



b



Supplemental Figure 7 IgA clonal diversity by donor. (a) Regions indicate frequency of clones detected at all possible specific time point combinations. Where red indicates frequency of clones present across all time points sampled, and black indicates frequency of clones unique to a single time point. (b) The average frequency of IgA clones across nine donors, that are detected at each time point and present across all time points assayed (red line) or are present for at least one month (black line).

Supplemental Table 2 – Heavy Chain Repertoire

	HC.Seq. Source	VH. locus	JH. locus	DH. locus	HC. IgBLAST. mutation. count	HC.CDR3.DNA	HC. CDR3. length	HC.CDR3. isoelectric. point	2ndPCR .Isotype	BASIC Isotype	HC Isotype	Clone
PW2-A1	BASIC	VH4-38-2	JH4	DH6-13	7	GCGAGAGTC CGGGGGCAT GGCCTGATC GGGCTGGAT TTCGGCACCA TAGCAGCCC CCCACCCATT TGA	24	6.9633178 71	IgG1	IgG1	IgG	0
PW2-A10	BASIC	VH3-74	JH3	DH3-9	30	GCAAGAGGT TATGACACTA CTGGTTATAA CTCGGGGGG CGATGCTATT TTTGATCTC	19	3.9299926 76	unclear	IgG1	IgG	0
PW2-A11	BASIC	VH4-59	JH6	DH5-18	36	GCGAGAGCG GACTTTGATG TAGAGGGATA CTACGGTTTG GACGTT	15	3.8390502 93	IgG1	IgG1	IgG	26
PW2-A12	BASIC	VH4-59	JH4	DH2-15	20	GCGAGACAT CACTCTGATA GTGGTGGTC TCCCGATGA GCTTTGCCTA C	16	6.9605102 54	IgG1	IgG1	IgG	0
PW2-A2	BASIC	VH3-48	JH4	DH3-16	28	GCGAGAGAT CACCACGGT GATTACTTCT TTGACTAC	12	5.1347045 9	IgG1	IgG1	IgG	25
PW2-A3	BASIC	VH1-3	JH6	DH3-22	36	GCGAGGTCT CGTGGTTACT CCGCCTTCTA CTACGGCAT	15	8.5392456 05	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						GGACGTC						
PW2-A4	BASIC	VH3-7	JH3	DH3-22	22	GCGAGGGGT TATGATAGTA CTGGTTATAA CTTACTGGGA GATGTTTTTG ATATG	18	3.9299926 76	IgG1	IgG1	IgG	17
PW2-A5	BASIC	VH3-7	JH4	DH2-21	15	GCGAGAGAG GCAGGTGGT GATTATTACC TTGACTCT	12	4.0280151 37	IgG1	IgG1	IgG	0
PW2-A6	BASIC	VH4-61	JH4	DH5-12	21	GCGACGCCG GACAGTGGC TACGATTCTG GGATGTTTCA CAAT	14	4.1968383 79	IgG1	IgG1	IgG	27
PW2-A7	BASIC	VH2-26	JH4	DH2-21	20	ACACGCATAA GGTGGGACT GTGGTGGTG ATTGCTATTG GACCCATGA CTTC	17	5.2677612 3	IgG1	IgG1	IgG	0
PW2-A8	BASIC	VH1-3	JH4	DH1-26	15	GCGAGAGAC ACTGTGGGA GCTACTAAGG CTTTTGACTA C	13	6.0040893 55	IgG1	IgG1	IgG	0
PW2-B1	BASIC	VH4-34	JH4	DH3-22	19	GCGAGAGGC CCGGCCTAT GATAATGATG CTTCTTTTCA GTACTACTTT GACCTC	18	3.9299926 76	IgG1	IgG1	IgG	21
PW2-B10	BASIC	VH3-74	JH4	DH6-19	15	GCAAAACCG AAAGAGGATA GTAGTGGCT GGTACTACTT	15	4.5582885 74	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						TGACTCC						
PW2-B11	BASIC	VH3-30-3	JH6	DH2-15	29	CCCCTGGCA CCCTCCTCCA AGAGCACCT CT	10	9.1799926 76	IgG1	IgG1	IgG	0
PW2-B12	BASIC	VH1-69	JH6	DH2-21	41	GCGAAAGATA CATTGACTGC CTTCGATTCC TACTTCTACT ACTATGCTAT GGACGTC	19	3.9299926 76	IgG1	IgG1	IgG	1
PW2-B2	BASIC	VH3-7	JH4	DH4-23	26	GTGAGGGAT TTCAGCGACT ACGCAGCAA CGCCCCTTG ACTAT	14	3.9298706 05	IgG1	IgG1	IgG	0
PW2-B3	BASIC	VH4-61	JH4	DH5-12	20	GCGACGCCG GACAGTGGC TACGATTCTG GGATGTTTCA CAAC	14	4.1968383 79	IgG1	IgG Family	IgG	27
PW2-B4	BASIC	VH3-15	JH4	DH1-26	39	ACCACCCTTG GATACAACAG CAGCTACTAT TACTTTGACT TC	14	3.7991333 01	IgG1	IgG1	IgG	0
PW2-B6	BASIC	VH3-30-3	JH6	DH6-13	28	GCGAGAGAG CCTATAGCAC CTGGTCCTTA TGACTACTAC GCCGGTATG GATGTC	18	4.0280151 37	IgG1	IgG1	IgG	12
PW2-B7	BASIC	VH3-30-3	JH6	DH6-13	28	GCGAGAGAG CCTATAGCAC CTGGTCCTTA TGACTACTAC GCCGGTATG	18	4.0280151 37	IgG1	IgG1	IgG	12

Supplemental Table 2 – Heavy Chain Repertoire

						GATGTC						
PW2-B8	BASIC	VH3-30-3	JH6	DH6-13	31	GCGAGAGAG CCTATAGCAC CTGGTCCTTA TGACTACTAC GCCGGTATG GATGTC	18	4.0280151 37	IgG1	IgG1	IgG	12
PW2-B9	BASIC	VH3-30-3	JH6	DH6-13	30	GCGAGAGAG CCTATAGCAC CTGGTCCTTA TGACTACTAC GCCGGTATG GATGTC	18	4.0280151 37	IgG1	IgG1	IgG	12
PW2-C11	BASIC	VH4-30-4	JH5	DH3-9	21	GCCGGAGCA TATTACGATA TTTTGACTCG TTACGGACTC GACCCC	15	4.2079467 77	unclear	IgA1	IgA	0
PW2-C12	BASIC	VH3-48	JH4	DH5-12	25	GCCATTTCTG TGGGTGGCT ACTTCTTTGA TTAC	11	3.7998657 23	IgA Family	IgA Family	IgA	0
PW2-C2	BASIC	VH1-69	JH6	DH5-12	13	GCGAGAGAT AAATTGAGTG CCTTCGATTC CTACTACTAC TACTACGGTA TGGACGTC	19	4.4290161 13	IgG1	IgG1	IgG	1
PW2-C5	BASIC	VH3-30-3	JH6	DH3-9	33	GCGAGAGAG CCTATCGCG CCTGGTCCT GATGACTACT ACGCCGGTA TGGATGTC	18	3.8390502 93	IgG1	IgG1	IgG	12
PW2-C6	BASIC	VH3-30-3	JH6	DH6-13	31	GCGAGAGAG CCTATAGCAC CTGGTCCTTA	18	4.0280151 37	IgG1	IgG1	IgG	12

Supplemental Table 2 – Heavy Chain Repertoire

						TGACTACTAC GCCGGTATG GATGTC						
PW2-C7	BASIC	VH3-30-3	JH6	DH2-2	37	GCGAGAGAG CCTATCGCG CCTGGTCCT GATGACTACT ATGCCGGTAT GGATGTC	18	3.8390502 93	IgG1	IgG1	IgG	12
PW2-C8	BASIC	VH1-69	JH6	DH5-12	14	GCGACAGAT AAATTGAGTG CCTTCGATTTC CTACTACTTC TACTACGGTA TGGACGTC	19	3.9299926 76	IgG1	IgG1	IgG	1
PW2-C9	BASIC	VH1-69	JH6	DH5-18	22	GCGAAAGATA CATTGAGTGC CTTCGATTCC TACTACTTCT ACTACGGTAT GGACGTC	19	3.9299926 76	IgG1	IgG1	IgG	1
PW2-D1	BASIC	VH3-72	JH3	DH5-24	23	GCTAGGGAG ATGGCCACA CGTACGGAC GATGATGCTC TTGATGTG	15	4.0359497 07	IgA1	IgA2	IgA	0
PW2-D11	BASIC	VH3-74	JH4	DH1-14	14	GCAAGAGAA CCTAGAGGA GGTCGCCCA TTTGACTGC	12	8.2943725 59	unclear	IgA1	IgA	0
PW2-D12	BASIC	VH4-30-4	JH5	DH2-15	22	GCCAGAGAT CGAAAACCA GCCATGGAAT GCATTGGTAG TGGATGCTCT TTTGTCCGCC TGGGGTTTCG	24	8.1000366 21	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						ACCCC						
PW2-D2	BASIC	VH3-53	JH3	DH1-26	20	GCGAGAGCA TCCGTTGACT TCATAGTGGA ACACCATATC TTTGATCTC	16	5.2136840 82	IgA1	IgA1	IgA	0
PW2-D3	BASIC	VH4-59	JH4	DH1-1	17	GCGAGAGGA CGCCGAGGT AGCGCCTGG AAGAACTTTG ACTAC	14	10.903625 49	IgA1	IgA1	IgA	0
PW2-D4	BASIC	VH3-7	JH4	DH2-8	25	GTGAGGGAT CGGGGTTGT CGAGCTGGT GGCTGTTACC GTGTTTTTGA CTAC	17	8.8986206 05	unclear	IgA1	IgA	18
PW2-D5	BASIC	VH3-48	JH6	DH6-25	23	GCGAGAGCG GCGTTTAGTA GGAATGGGT ACTACCACTA CGGAATGGA CGTC	17	8.5455932 62	IgA Family	IgA2	IgA	0
PW2-D6	BASIC	VH4-39	JH6	DH1-14	29	GCGAGACTG GCGGGGGCA GCTACTTCGA TAGAGGATAT AACTCACTAT AACCATTATG GTATGGACGT C	23	5.2136840 82	IgA Family	IgA1	IgA	0
PW2-D7	BASIC	VH4-59	JH3	DH1-26	9	GTGAGACAT GAGTGGGCG CCCCGAGGG CTTGATGCTT TTGATTTC	15	5.3795776 37	unclear	IgA1	IgA	0
PW2-D8	BASIC	VH4-59	JH4	DH4-11	9	GCGGGGCGG	13	4.2079467	IgA	IgA1	IgA	23

Supplemental Table 2 – Heavy Chain Repertoire

						TCGGCTACA GTACTGGCT GACTCTGACT AC		77	Family			
PW2-D9	BASIC	VH4-59	JH4	DH4-11	9	GCGGGGCGG TCGGCTACA GTACTGGCT GACTCTGACT AC	13	4.2079467 77	IgA Family	IgA1	IgA	23
PW2-E1	BASIC	VH3-20	JH6	DH1-20	28	GCGAGAGAG GGGTACAGT GAGCCCTATA ACTACTATCA TTATGGATTG GACGTC	18	4.6513061 52	unclear	IgA1	IgA	0
PW2-E10	BASIC	VH4-38-2	JH4	DH3-10	9	ACGAGGATTT ATATGGTTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5554809 57	IgA1	IgA1	IgA	22
PW2-E11	BASIC	VH4-38-2	JH4	DH3-10	14	GCGAGGATTT ATATGGTTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5582885 74	IgA1	IgA1	IgA	22
PW2-E12	BASIC	VH5-10-1	JH4	DH3-10	9	GCGAGACTA CTTTATGGTT CGGTGGACT TC	10	5.8803100 59	IgA1	IgA2	IgA	0
PW2-E2	BASIC	VH3-53	JH6	DH2-21	15	GCGAGAGAG CGACGTTTTT GTGGTGATAA TTGCTATCTT CACTACTACT ACGGTATGG ACGTC	21	6.7753295 9	IgA Family	IgA1	IgA	0
PW2-E3	BASIC	VH3-48	JH4	DH4-17	5	GCGAGAGAT	12	3.9299926	IgG1	IgG1	IgG	25

Supplemental Table 2 – Heavy Chain Repertoire

						TCTTTCGGTG ACTACTTCTT TGACAAT		76				
PW2-E4	cloning	VH5-10-1	JH5	DH1-26	15	GCGAGGTTG TTGAGTGGG ACCTTTGACT CC	10	5.8811645 51	IgG1	IgG1	IgG	28
PW2-E5	BASIC	VH3-33	JH6	DH6-19	24	GCGAGAGAA CTCGTGGCT GTGGGGCCA ATCGACTACT TCCACGGCAT GGACGTC	18	4.5365600 59	IgG1	IgG1	IgG	0
PW2-E6	BASIC	VH3-11	JH6	DH2-2	15	GCGAGAGCC CTACGATATT GTAGTAGCAA TAGCTGCCCT GAATCTTACT ACTACTATTA TGGTATGGAC GTC	24	6.0929565 43	IgG1	IgG1	IgG	3
PW2-E7	BASIC	VH3-30	JH5	DH3-22	19	GCGAAACAG GGATATTACT ATGATAGTAC TGGGTCGAA GTGGTTCGA CCCC	17	6.0014038 09	IgG3	IgG3	IgG	0
PW2-E8	BASIC	VH4-61	JH5	DH2-21	28	GCGCGGGGG GGACTCAGT GACTTCGTCTG TCCCTTTAGA CTCC	14	4.2079467 77	IgG Family	IgG1	IgG	0
PW2-E9	BASIC	VH4-38-2	JH4	DH3-10	12	ACGAGGATTT ATATGGTTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5554809 57	unclear	IgA1	IgA	22

Supplemental Table 2 – Heavy Chain Repertoire

PW2-F1	BASIC	VH4-38-2	JH4	DH3-10	6	GCGAGGATTT ATATGGTTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5582885 74	unclear	IgA1	IgA	22
PW2-F11	BASIC	VH5-10-1	JH4	DH1-26	22	GCGAGACCC GGAGTGGGA CCTCCTTCGG ACTAC	11	5.8803100 59	IgG1	IgG1	IgG	0
PW2-F12	BASIC	VH4-39	JH6	DH4-17	19	GCGAGACCG AGCAGTGACT ACTACTCCTA CGCTATGGA CGTC	14	4.2079467 77	IgG1	IgG1	IgG	0
PW2-F2	BASIC	VH3-15	JH4	DH4-17	10	GCCGCCGAA GACTTCGGT GACTACTACT TTGACTAC	12	3.3739624 02	unclear	IgA1	IgA	0
PW2-F3	BASIC	VH3-21	JH6	DH3-16	26	GCGAGACAC CGACCCGGG GGGGACTAC TACTACTACG GTATGGACGT C	16	6.7882690 43	unclear	IgA1	IgA	0
PW2-F4	BASIC	VH4-38-2	JH4	DH3-10	6	GCGAGGATTT ATATGGTTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5582885 74	IgA1	IgA1	IgA	22
PW2-F5	BASIC	VH3-23	JH4	DH3-9	34	GTTACCTGGC GGAGGTCTC TGA CTGGTTA TCCCGATTCTG GGGGTTTTTG ACTAC	18	5.9302368 16	unclear	IgA1	IgA	0
PW2-F6	BASIC	VH3-48	JH4	DH2-8	12	GCGAGACTT CTGTATTGTA	18	8.0737915 04	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						CTACTTGTTA CGGACTTGG GAGGTTCCC CGACTAC						
PW2-F7	BASIC	VH3-11	JH6	DH3-22	22	GCGAGAGGC CTGACTTATT ATGATAGTAG TGTTAATGCT TACTATGCTA TGGACGTC	19	4.2079467 77	unclear	IgA1	IgA	0
PW2-F8	BASIC	VH3-7	JH3	DH6-19	18	GCGAGATGC ACTGGCTGG CGTGATCCTT TTGATTTA	12	5.9971313 48	unclear	IgA1	IgA	16
PW2-F9	BASIC	VH3-21	JH3	DH2-8	16	GCGCGCGAG ACCACCTATT TCTATGATAC TGGTGGTTCC GCCTATGCTT TTGATGTC	19	4.0280151 37	IgA Family	IgA1	IgA	0
PW2-G1	BASIC	VH3-9	JH6	DH2-15	8	GCAAAAGATA TCAGAAGGG GTTGTAGTGG TGTTAACTGC TACTCCTATT ATTATTACTA CTATGGTCTG GACGTC	25	8.0184936 52	IgG1	IgG1	IgG	29
PW2-G10	BASIC	VH3-74	JH4	DH3-16	2	GCAAGAGGG GGCCGTACG TTTGGGGGA GTTATCGTCC AG	13	12.000061 04	IgA1	IgA2	IgA	0
PW2-G11	BASIC	VH3-7	JH4	DH6-19	7	GCGAAATATG GAACCGATG GGGGTGGCA GTGGCTGGA	14	6.7871704 1	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						ATCAC						
PW2-G12	BASIC	VH4-59	JH4	DH2-2	16	GCGAAAATGA CGAGGCAAT ATTGTGATAG TGCCAGCTG CTATGGGGG ACCTTTTGAC TTC	20	5.9863891 6	IgA Family	IgA2	IgA	0
PW2-G2	BASIC	VH3-53	JH4	DH1-26	25	GCAAGAGAC AATAGAAGG GAGGCCTAC	9	8.7880249 02	IgG1	unclear	IgG	0
PW2-G3	BASIC	VH3-9	JH6	DH2-15	16	GCAAAAGATA TCAGAAGGG GTTGTGATGG TGTTAACTGC TACTCCTATT ACTACTACTA TTATGGTTTG GACGCC	25	6.0615844 73	IgG1	IgG1	IgG	29
PW2-G4	BASIC	VH5-10-1	JH1	DH5-24	28	GCGAGAATTC GTAGAGATG GGTACAATCT GGGGCTTTTT GACCAC	15	8.7938842 77	IgG1	IgG1	IgG	0
PW2-G6	BASIC	VH3-30	JH6	DH2-2	23	GCGAAAGAC CGCTACTGTA GTAGTACCG CCTGTTATGG GCTCGGCGG TTTGGACGTC	19	5.9863891 6	IgA1	IgA1	IgA	0
PW2-G7	BASIC	VH4-39	JH5	DH6-19	42	GTGAGACCT GTCATTGGCA GTGGCAGGT ACCGAGGAC CCCACTCGTT CGACCCC	18	10.737243 65	IgA1	IgA1	IgA	0
PW2-G8	BASIC	VH3-9	JH3	DH3-9	27	GCAGCGGGG	22	3.8302612	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						AATTATTTTG AAACAAGGTC TGAAGAGAAC GAAGCCCCA TATGATGCTT TTGAAATT		3				
PW2-G9	BASIC	VH3-30	JH4	DH3-22	11	GCGAAGGCG GGTAGTGGTT ATAACTCAAG GCCTGACTC C	13	8.6338500 98	IgA1	IgA1	IgA	0
PW2-H1	BASIC	VH1-2	JH3	DH2-21	34	GCGAGAAATT TTTGTGGTGC TGACTGTTTC GGCTCGGCT CCCGATGCTT TTGATATC	19	3.9299926 76	IgA1	IgA1	IgA	0
PW2-H2	BASIC	VH3-7	JH5	DH2-15	18	GCGAGAGTA GGATATTGTA GTGGTGAGA CCTGCCAGG GCCGGGACT GGTTCGACC CC	19	4.5581665 04	IgA Family	IgA2	IgA	0
PW2-H3	BASIC	VH3-66	JH5	DH3-10	25	GCGAGAGAT CTATTGCGG GCCTCGGGG AGTTCC	11	9.6436157 23	IgA1	IgA1	IgA	0
PW2-H4	BASIC	VH3-23	JH4	DH5-18	17	GCGAAAGGG ACAAGTAACA GGGCAGGTT ACTACTTTGA CTAC	14	8.4732055 66	IgA Family	IgA1	IgA	0
PW2-H5	BASIC	VH3-30-3	JH6	DH2-8	9	GCGAGAGGA TATTGTACCG CTAGCAGCT GCTTGGAGG	23	6.7711791 99	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						TGCGCTACTA CTACTTTTCAC TACATGGACG TC						
PW3-A1	BASIC	VH3-7	JH4	DH3-3	33	GTGAAAGAC GCATTTTGTG GCGATAAGT GCTATCCCTT TGA CTCC	15	4.4288940 43	IgA1	IgA1	IgA	0
PW3-A10	BASIC	VH3-7	JH3	DH4/OR 15-4a	35	GCGAGGGAT CCATTTGTAG GAAGGTATG GTGCTTTTGA CATT	14	6.0049438 48	IgA1	IgA1	IgA	0
PW3-A11	BASIC	VH3-23	JH4	DH2-2	24	CGTGAAGGG CCGGTTCAC CATCTCCAGA GACAATTCCA AGAACACACT	16	7.0278930 66	IgA Family	IgA1	IgA	0
PW3-A12	BASIC	VH3-72	JH6	DH5-24	9	GCTAGAGAAA TGAAGCTAGA GATGGCCAC AATAGAGTAC TGGTACTACG GTATGGACGT C	20	4.4074096 68	IgA1	IgA2	IgA	0
PW3-A2	BASIC	VH3-11	JH6	DH3-10	12	GCGGCGGGT TCGGGGAGT TATAATTATC ACGGTTTGGA CGTC	14	5.0781860 35	IgA1	IgA1	IgA	2
PW3-A3	BASIC	VH3-53	JH4	DH5-18	7	GCGAGAGAA GTGCATGATG GATACAGTTA TGGACTTGAC TAC	14	4.5365600 59	IgA1	IgA1	IgA	0
PW3-A4	BASIC	VH3-11	JH6	DH3-10	12	GCGGCGGGT	14	5.0781860	IgA1	IgA1	IgA	2

Supplemental Table 2 – Heavy Chain Repertoire

						GCGGGGAGT TATTCCTACC ACGGTTTGGA CGTC		35				
PW3-A5	BASIC	VH3-11	JH6	DH3-10	10	GCGGCGGGT TCGGGGAGT TATAGTTACC ACGGTTTGGA CGTC	14	5.0781860 35	IgA1	IgA1	IgA	2
PW3-A6	BASIC	VH4-39	JH5	DH1-26	33	GCCAAGTGG GGGGGGGGC TTTGACCCC	9	5.8803100 59	IgA Family	IgA2	IgA	0
PW3-A7	BASIC	VH3-33	JH3	DH3-16	24	GCGAAGGAT TGGGGCCTG AAGGCTTTTG ATGTC	11	6.0040893 55	IgA1	IgA2	IgA	0
PW3-A8	BASIC	VH3-64D	JH4	DH2-8	8	GTAAAAGGGT ACTTCTTTGA CGAC	8	4.5354614 26	IgA1	IgA1	IgA	15
PW3-A9	BASIC	VH3-30-3	JH6	DH3-9	17	TCGAGAGAG TATTACGATA CTTTGACTGG ACCTGAGGA CTACGACTAC GGTATGGAC GTC	20	3.6598510 74	IgA1	IgA1	IgA	13
PW3-B1	BASIC	VH3-30-3	JH6	DH3-9	14	GCGAGAGAG TATTACGATA CTTTGACTGG ACCTGTGGA CTACGACTAC GGTATGGAC GTC	20	3.7100219 73	IgA1	IgA1	IgA	13
PW3-B10	BASIC	VH3-9	JH4	DH3-10	10	GCAAAAGGC TATGGTTCGG GGAATTCTTA CCCCCTGGC	18	5.8777465 82	IgA1	IgA1	IgA	19

Supplemental Table 2 – Heavy Chain Repertoire

						GCCCACTCTT GACTAC						
PW3-B11	BASIC	VH3-9	JH4	DH3-10	15	GCAAAAGGC TATGGTTCGG GGAATCATTA CCCCCTGGC GCCCACTCTT GACTAC	18	6.7849731 45	IgA1	IgA1	IgA	19
PW3-B12	BASIC	VH3-15	JH5	DH2-2	17	ACTAAGTACG TCGGATATTG TGAAAGTACC AACTGCTATG AGGTCCAAA GGGGGTTCG ACCCC	21	4.6754760 74	IgA1	IgA1	IgA	0
PW3-B3	BASIC	VH3-9	JH4	DH3-10	10	GCAAAAGGC TATGGCTCG GGGAGTTCTT ACCCCTGG CGCCCACTCT CGACTAT	18	5.8777465 82	IgA1	IgA1	IgA	19
PW3-B4	BASIC	VH3-9	JH4	DH3-10	8	GCAAAAGGC TATGGTTCGG GGAATTCTTA CCCCCTGGC GCCCACTCTT GACTAC	18	5.8777465 82	IgA1	IgA1	IgA	19
PW3-B5	BASIC	VH3-30	JH6	DH4-17	11	GCGAAAACCTA CGGTGACTA CTGATTTCTA CTACTATTAC GGCATGGAC GTC	17	4.2079467 77	IgA1	IgA1	IgA	0
PW3-B6	BASIC	VH3-23	JH4	DH1-1	21	GCGAAAACCT GGTGGCCCA CATGCTACCC ACCCACACAA	13	8.8123168 95	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						C						
PW3-B7	BASIC	VH3-20	JH6	DH2-2	23	GCGAGAGAA TCGGGTTCTG ATGTAGCAAC TGCTATGGAT TACTACTATT ACTATTATAT GGACGTC	22	3.8390502 93	IgA1	IgA1	IgA	4
PW3-B8	BASIC	VH3-23	JH4	DH3-3	5	GCGAAAGTT GGAGTGAGC AGTGGTTTCC ATGGAAGGG CTTACTACTT TGACTAC	18	8.4795532 23	IgA1	IgA Family	IgA	7
PW3-B9	BASIC	VH3-48	JH4	DH3-3	9	GCGAGACAA TATTACGAAT TTTGGAGTGG TTATTATACC GGTATGGGC TAC	17	6.0425415 04	IgA1	IgA1	IgA	0
PW3-C10	BASIC	VH3-30	JH4	DH1-1	21	GCGAAAGATA GCGGATATAC CATCAACTGG GCCCCGGGC TAC	14	5.8786010 74	IgG1	IgG1	IgG	0
PW3-C12	BASIC	VH3-48	JH4	DH5-24	30	GTGAGAGAT CACGTAGAAT TGGCTACAGA TCATTCGGAA TTTGACTAC	16	4.4186401 37	IgG1	IgG1	IgG	14
PW3-C2	BASIC	VH3-23	JH4	DH3-22	14	GCGAAAGTT GGAGTGAGT AGTGGTTTCC ATGGAAGGG CTTACTACTT TGACCAG	18	8.5463256 84	IgA1	IgA1	IgA	7
PW3-C3	BASIC	VH3-9	JH4	DH3-10	10	GCAAAAGGG	18	6.7849731	IgA1	IgA1	IgA	19

Supplemental Table 2 – Heavy Chain Repertoire

						TATGGTTCGG GGAATCATT TCCCCTGGC GCCCCACTCTT GACTAT		45				
PW3-C5	BASIC	VH3-9	JH4	DH3-10	15	GCAAAAGGC TATGGTTCGG GGAATCATT CCCCCTGGC GCCCCACTCTT GACTAC	18	6.7849731 45	IgA1	IgA1	IgA	19
PW3-C6	BASIC	VH3-9	JH4	DH3-10	14	GCAAAAGGC TATGGCTCG GGGAGTTCTT ACCCCCCTGG CGCCCCATGC TTGACTAC	18	5.8777465 82	IgA1	IgA1	IgA	19
PW3-C9	BASIC	VH3-23	JH5	DH6-19	10	GCGAAAGGG CGGAGGGGA CCATTTGAGG ATGGCTGGTT CGACACC	15	6.1661987 3	IgG1	IgG1	IgG	0
PW3-D1	BASIC	VH3-30	JH6	DH5/OR 15-5a	16	GCGCGTGTC TTCCAATCCT ACGGTATGG ACGTC	11	5.8803100 59	IgG1	IgG1	IgG	10
PW3-D10	BASIC	VH3-74	JH4	DH3-10	13	GCAAGAGAG CCTTACTTCC CCCTCTACTT TGACTAC	12	4.3703002 93	IgG1	IgG1	IgG	20
PW3-D11	Cloning	VH3-74	JH4	DH3-10	14	GCAAGAGAG CCTTATTTCC CCCTCTACTT TGACTAC	12	4.3703002 93	IgG1	IgG1	IgG	20
PW3-D12	BASIC	VH3-20	JH6	DH2-2	19	GCGAGAGAA TCGGGTGAC GTAGCAACTG	21	3.8390502 93	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						CTATGGATTA CTACTATTAT TACTATCTGG ACGTC						
PW3-D2	BASIC	VH3-48	JH4	DH5-24	15	GCGCGAGAT CACGTAGAG ATGGCTACAG ATCATGCGGA ATTTGACTAC	16	4.4187622 07	IgG1	IgG1	IgG	14
PW3-D4	BASIC	VH4-39	JH4	DH3-16	21	GCGAGACAT CTCCGGGGG GACTTCGCTG ACTACTTTGA CTAC	14	5.2988891 6	IgG1	IgG1	IgG	0
PW3-D5	BASIC	VH3-20	JH4	DH2-21	11	GCGAGAAGG AGATCATGTG GTGGTG CAT GTTACTACTT TGACTAC	15	8.8635864 26	IgG1	IgG1	IgG	0
PW3-D6	BASIC	VH1-46	JH4	DH2-21	26	GCGAGACTA CGTAGTTGTG GTGGTGACT GCTATTACTT TGACTAC	15	5.9863891 6	IgG1	IgG1	IgG	0
PW3-D9	BASIC	VH3-20	JH6	DH2-2	21	GCGAGAGAA TCGGGTTCTG ATGTCGCAAC TGCTATGGAT TACTACTATT ATTACTATAT GGACGTC	22	3.8390502 93	IgG1	IgG1	IgG	4
PW3-E1	BASIC	VH1-3	JH6	DH2-2	11	GCGAGAGAT AAGGGGAAC ATTGTAGGAG TACCAGCTGC CTGGACTATC GGCTGGTAC	23	6.0040893 55	IgG Family	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						GGTATGGAC GTC						
PW3-E3	BASIC	VH3-9	JH6	DH4-17	21	GCAAAAGAG GGGCATAGC GACAACTGTC TCGATTGTGA CTACTTCTAC TACATGGACG CC	20	4.0324096 68	IgG1	IgG1	IgG	0
PW3-E4	BASIC	VH3-20	JH6	DH5-18	20	GCGAGAGAA TCGGGTTCTG ATGTAGCCAC TGCGATGGAT TACTACTATT ATTACTATCT CGACGTC	22	3.8390502 93	unclear	IgG1	IgG	4
PW3-E7	BASIC	VH4-4	JH6	DH6-19	15	GCGAGGGAT CATCTGGTCG GACAACAGT GGCTGGAGT ATTACTACTA CTACGGTTTG GACGTC	21	4.5365600 59	IgG1	IgG1	IgG	0
PW3-E9	BASIC	VH3-20	JH6	DH2-2	24	GCGAGAGAA TCGGGCTCT GATGTAGCAA CTGCTATGGA TTACTATTATT ATTACTATAT GGACGTC	22	3.8390502 93	IgG1	IgG1	IgG	4
PW3-F10	BASIC	VH3-23	JH4	DH3-3	40	GCCAAAGGG TCGGCGAAAT TCAAGTCTCA ACAATTCTTG GCTAGGAGT GGTTATACTC AGCGAAGCC	26	10.446960 45	IgA Family	IgA1	IgA	8

Supplemental Table 2 – Heavy Chain Repertoire

						ATTTTGACTT C						
PW3-F11	BASIC	VH3-30	JH6	DH3-9	30	GCGAAAGAT CTGACATTAC GATTTTTTGA CTGGCCAAA CTACTACGGT ATGGACGTC	19	4.4290161 13	IgA1	IgA1	IgA	0
PW3-F12	BASIC	VH3-48	JH4	DH2-21	9	GCGAGGGAG AAAGAGCGC TATCCAACCT TTGACTCC	12	6.2254028 32	IgA Family	IgA1	IgA	0
PW3-F2	BASIC	VH3-11	JH3	DH4-17	28	GCGAGTCGA ACGGTGACTA GTCGGGCTT ATGATATC	12	8.7902221 68	IgG1	IgG1	IgG	0
PW3-F3	BASIC	VH3-20	JH6	DH2-2	16	GCGAGAGAA TCGGGTTCTG ATGTAGCAAC TGCTATGGAT TACTACTATT ATTACTATAT GGACGTC	22	3.8390502 93	IgG1	IgG1	IgG	4
PW3-F4	BASIC	VH3-23	JH6	DH2-21	19	GCGAGATTC GCATATTGTA GTGGTGACT GCTACAAGG CCTCTTACTA CGGTCTGGA CGTC	20	5.9848022 46	IgG1	IgG1	IgG	0
PW3-F6	BASIC	VH3-21	JH4	DH6-13	21	GCGAGAGAT AGGGGCAGC ACCACGGCT GACTAT	11	6.0049438 48	IgA1	IgA1	IgA	0
PW3-F7	BASIC	VH3-43	JH4	DH1-1	30	GTAAAGGACC ACTGGACCG ATAAT	8	5.2096557 62	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

PW3-F8	BASIC	VH3-23	JH4	DH1-20	21	GCGAAAGGA AGGGGGCGG GTGGATAAC	9	10.835144 04	IgA Family	IgA2	IgA	0
PW3-F9	BASIC	VH3-11	JH4	DH5-24	15	GCGAGAGCA GATGGCTACA CCTATTTTGA CATC	11	4.2079467 77	IgA1	IgA1	IgA	0
PW3-G1	BASIC	VH3-21	JH6	DH6-6	1	TGCCAAGAAT GTTTTCATTA ATCAAGAACG AAAGTCGGA GGTTCG	15	0	IgA1	IgA1	IgA	0
PW3-G10	BASIC	VH4-61	JH4	DH2-21	35	GCGAGGCTG TGGGCCGGT ATTGTGGGAC CTACTCCTCC ATTTTTTGAC TAC	17	5.8803100 59	IgA1	IgA2	IgA	0
PW3-G12	BASIC	VH3-23	JH4	DH2-2	24	GCGAAAGAT CGCGTAGTA CCAACCTCTC TGCACGGTTA CCTTGACTCC	16	6.7904663 09	IgG1	IgG1	IgG	6
PW3-G2	BASIC	VH3-23	JH4	DH5-18	26	GCGAAAGAT GCGATAGCG GGACGAGTA TGGTTACAGG GGGCCTTTG ACTCT	17	6.0049438 48	IgA1	IgA1	IgA	24
PW3-G3	BASIC	VH4-59	JH6	DH3-3	22	GGGAGACAA TTTTACGATT CCCATTACTA CTACTACTAC AATATGGACG TC	17	5.2107543 95	IgA1	IgA1	IgA	0
PW3-G4	BASIC	VH3-15	JH1	DH6-13	6	ACGGGGCGC AGCTGGTAC	12	5.4979858 4	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						GATTTCTACT TCCAGTAT						
PW3-G5	BASIC	VH3-23	JH6	DH3-10	19	GGGAAATCTA TAGAAAATAT GGTTCGGGG ACTTCTTATA ACCTCATTG CCTACTACTT CGCTGTGGA CGTC	24	6.0682983 4	IgA Family	IgA1	IgA	9
PW3-G6	BASIC	VH4-31	JH4	DH5-24	30	GCGAGAGGC CGAGATGCC TACAAGGCC GGCTAC	11	9.6975708 01	IgA Family	IgA2	IgA	0
PW3-G7	BASIC	VH3-48	JH5	DH6-13	13	GCGAGAGGC AGTAGCAGC AGCTGGCAC GGTGGGCTG TGGGCACAC TGGTTCGACC CC	19	6.9617309 57	IgA Family	IgA1	IgA	0
PW3-G8	BASIC	VH3-21	JH4	DH3-22	18	GCGAGAGAC TTCTATGATA GTGGTGCTTT TTACCTTTAT TTTGACTCC	16	3.9299926 76	IgA1	IgA2	IgA	0
PW3-G9	BASIC	VH4-30-4	JH1	DH1-7	24	CCATAGGAG CCGGCCATC CCATACTGG GAAGGGGAG	12	0	IgA1	IgA1	IgA	0
PW3-H1	BASIC	VH4-39	JH3	DH3-10	17	GTTGGTTCCC AAGCCATTGA TGCTTTTGAT TTC	11	3.5636596 68	IgG3	IgG3	IgG	0
PW3-H10	BASIC	VH3-30-3	JH4	DH4-17	6	TCGAGAGATC AAGGCGGAG ACTACGGTGA	17	3.7694702 15	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						TTACGGAGG GGGTTTTGAC TAC						
PW3-H11	BASIC	VH3-33	JH6	DH3-9	6	GCGAGAGAG TATTACGATG TTTTGACTGG ACCTGAGGA CTACGACTAT GGTATGGAC GTC	20	3.6599731 45	IgG1	IgG1	IgG	0
PW3-H12	BASIC	VH4-39	JH4	DH3-9	13	GCGAAAAATA TCGCCCTCTT TGACTCCTAT TTATAC	12	5.8786010 74	IgG1	IgG1	IgG	0
PW3-H3	BASIC	VH1-2	JH4	DH1-14	12	GCGCGAGAT CTAGGAGAC ACCACCACCT CTGACTAC	12	3.9299926 76	IgG1	IgG1	IgG	0
PW3-H4	BASIC	VH3-7	JH3	DH5-18	11	GCGAGGATC CCCGGTTAC CATGATGCTT TTGATATC	12	5.2123413 09	IgG1	IgG1	IgG	0
PW3-H5	BASIC	VH3-23	JH4	DH6-19	8	GCGAAAGATT ACTCACGTAC TATACCATTG GCTGGTTTCC TTGACCAG	16	6.0040893 55	IgG1	IgG1	IgG	0
PW3-H6	BASIC	VH3-49	JH4	DH6-13	10	ACTAGAGACC CACTAGCAG CAGGTGGAG TTCTTTTTGA TTAC	14	4.2064819 34	IgG1	IgG1	IgG	0
PW3-H7	BASIC	VH2-70	JH5	DH4-17	8	GCACGGATG TTATACGGTG ACTCCGTAA CTGTCTCGAC CCC	14	4.2078247 07	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

PW3-H8	BASIC	VH3-23	JH4	DH2-2	33	GCGAAAGAT CGCGTTGTAC CAACTGCTCT GCACGGTTA CCTTGACTCC	16	6.7904663 09	IgG1	IgG1	IgG	6
PW3-H9	BASIC	VH4-39	JH3	DH5-12	17	GAGGGTGGC TCCGGACTTG ATGCTTTTGC TATC	11	3.6659545 9	IgG1	IgG1	IgG	0
PW4-C10	BASIC	VH3-11	JH6	DH2-15	17	GCGAGAGCC CTACGGTCTT GCAGTAGCA ATAGCTGCCC TGAATCTTAC TACTACTATT ATGGTATGGA CGTC	24	6.0938110 35	IgG1	IgG1	IgG	3
PW4-C11	BASIC	VH3-11	JH6	DH2-2	21	GCGAGAGCC CTGCGAAAGT GTAGTAGTAA TAGCTGCCCT GAATCTTACT ACTACTATTA TGGCATGGA CGTC	24	8.0393676 76	IgG1	IgG1	IgG	3
PW4-C4	BASIC	VH3-23	JH4	DH3-22	35	GTGAAATACG ATAGTAGTGG TTTCGACTAC GCACGGGGG GGTAGAGAG	16	6.2410278 32	IgG1	IgG1	IgG	0
PW4-C6	BASIC	VH3-23	JH3	DH3-10	21	GCGAAGCGC TCAACGTATT ACTTAGATAG AAATGGTCCC AATGATGCTT TTGACATC	19	6.0824584 96	IgG1	IgG1	IgG	0
PW4-C7	Cloning	VH3-15	JH5	DH3-22	17	ACCACAAGGT	17	4.1384887	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						CGGATTACTA TGATACTAGT GATTATTCCT TCTTTGACCG C		7				
PW4-C8	BASIC	VH3-7	JH3	DH3-9	19	GCGAGAGCG TATGATACCA CTGGTTATTA TAACAATTGG GATATTTTGG ATATC	18	3.9299926 76	IgG1	IgG1	IgG	17
PW4-C9	BASIC	VH3-11	JH6	DH2-2	14	GCGAGAGCC CTACGATATT GTAGTACAAA TAGCTGCCCT GAATCTTACT ACTCCTATTA TGGTATGGAC GTC	24	6.0938110 35	IgG1	IgG1	IgG	3
PW4-D1	BASIC	VH4-38-2	JH4	DH2/OR 15-2a	36	AATTTACGTG CCTTCAGTGG CTTCGATTCC TAC	11	5.8356323 24	IgG1	IgG1	IgG	0
PW4-D10	BASIC	VH3-43D	JH6	DH6-6	17	GCCTCTCAAG AAAAAGAGCT ATGCAGTCAG CAATGA	12	0	IgA1	IgA1	IgA	0
PW4-D11	BASIC	VH3-48	JH3	DH3-10	15	GCGAGAGGA AATCAAGAGG GGGTCGGGG AGTTATCCTC TCAGGGTGTT TTTGATAAT	19	4.1373901 37	IgA1	IgA1	IgA	0
PW4-D12	BASIC	VH4-38-2	JH4	DH4-23	35	GCGAGTCGG TGGGCGAGT ACGAAATACT TCAACTTC	12	9.9949340 82	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

PW4-D2	Cloning	VH4-34	JH4	DH3-16	17	GCGAGAGGC GTTTTGGGG GAGTTGACTG CAATTCATTT TGACTAC	15	5.3222045 ₉	IgG1	IgG1	IgG	0
PW4-D3	BASIC	VH4-39	JH4	DH3-9	17	GCGAGAGCC TACGGCGTAT TGCGATATTT TGACTGGCAA CCATCTAACT ACTACTTTGA CTTC	21	6.0022583 ₀₁	IgG1	IgG1	IgG	0
PW4-D4	Cloning	VH4-59	JH6	DH3-16	27	GCGAGAGCG GATTATGATG TAGAGGGCT ACTTCGGGAT GGACGTG	15	3.8390502 ₉₃	IgG1	IgG1	IgG	26
PW4-D5	BASIC	VH1-69	JH4	DH4-17	22	GCGAGAGAA TCTTGGGGT GACTACTACT TTGAATAT	12	4.1373901 ₃₇	unclear	IgG1	IgG	0
PW4-D6	BASIC	VH5-10-1	JH4	DH1-26	22	GCGAGACTT GCCCATGGG ACTCTTGACT AC	10	6.7882690 ₄₃	IgG1	IgG1	IgG	28
PW4-D7	BASIC	VH1-2	JH4	DH3-9	44	GTGAGAGAA GACGTCTTG GATAGTTATT TTGATTAT	12	3.8389282 ₂₃	IgG1	IgG1	IgG	0
PW4-D9	BASIC	VH4-34	JH4	DH3-16	12	GCGAGAGGC CCGGCCTAT GACAGTAATG CTTATTTCT GTACTACTTT GACTAT	18	4.2079467 ₇₇	IgA1	IgA1	IgA	21
PW4-E1	Cloning	VH3-7	JH4	DH3-22	34	GCGAGAGAG GGCCTAGGG	17	3.9165649 ₄₁	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						GATTACTATG AGAGTAACTA CTACTTTGAC TAC						
PW4-E10	BASIC	VH4-34	JH4	DH3-16	12	CTCTGTGACA CTCTCCTGG GAGTTACCC GATTGGAGG GCGTTATCCA CCTTCCA	18	5.3203735 35	IgA1	IgA1	IgA	0
PW4-E2	BASIC	VH3-74	JH4	DH4-23	4	GCAAGAGGA AACGGTGGT AACGTCCCG CCCGACTTC	12	5.8811645 51	IgA Family	IgA1	IgA	0
PW4-E3	BASIC	VH3-66	JH6	DH1-14	0	GCGAGAGAA TCGTGGCAG CTTGGTATAA TGGAGGGGG CTCACTACTA CTACTACGGT ATGGACGTC	22	4.6513061 52	IgA1	IgA1	IgA	0
PW4-E4	BASIC	VH3-7	JH3	DH6-19	26	GCGAGAGGC ACTGGCTGG CGTGATCCTT TTGATATG	12	6.0057983 4	IgA1	IgA1	IgA	16
PW4-E5	Cloning	VH3-11	JH5	DH4-17	18	GCGAGAGAT GACTTCGGT GACTACGTCT CTGATTCC	12	3.7697143 55	IgA1	IgA1	IgA	0
PW4-E6	BASIC	VH3-21	JH4	DH5-24	19	GCGAGAGAT GGGGCCAAT AATTCCGGCT TTGAT	11	4.5357055 66	IgA1	IgA1	IgA	0
PW4-E7	BASIC	VH3-23	JH5	DH3-3	6	GCGAAAGAA GGTGGTGATT TTTGGAGTGG TTATTACGCC	18	4.0280151 37	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						AACTGGTTCG ACCCC						
PW4-E8	BASIC	VH4-59	JH5	DH3-16	20	GCGAGAGAC GACCTATGG GAGGGGGAG GACACC	11	3.7691040 04	unclear	IgA1	IgA	0
PW4-E9	BASIC	VH4-38-2	JH4	DH3-10	9	GCGAGGATTT ATATGGTTCG GGACCTTGA GATATACTAC TTTGACTCC	16	4.5582885 74	IgA1	IgA1	IgA	22
PW4-F1	BASIC	VH3-48	JH6	DH2-15	5	GCGAGAGTA AGATGTAGTG GTGGGAGCT GCTACTCAG GATACTACGG TATGGACGTC	19	8.0737915 04	IgA Family	IgA1	IgA	0
PW4-F10	BASIC	VH4-39	JH5	DH1-26	24	GCGAGAGCT AGGGGGATC GTGGGCTGG TTCGACCCC	12	9.6436157 23	IgA Family	IgA1	IgA	0
PW4-F11	BASIC	VH3-49	JH4	DH1-26	25	TCTAGAGGG AGGCAGGAG CTGGGAGCC GGATACTACT TTGACTAC	15	5.7885131 84	IgA Family	IgA2	IgA	0
PW4-F12	BASIC	VH3-30	JH3	DH6-13	33	TGCCAGCTC CTCATTGTGC AGTGGCTCTT GGCCGGCTG ATGCCGCCC GGCC	17	0	IgA1	IgA1	IgA	0
PW4-F2	BASIC	VH3-15	JH5	DH3-3	26	ACCACAAGC CAGCCATATC ATCATTACTC TTTTTGGAGT CACTTCGACC	17	6.1718139 65	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						CC						
PW4-F3	BASIC	VH3-30	JH3	DH3-10	19	GCGAAAGATA TCGGATATAT GGTTCAGGC TTTTGATGTC	13	4.2079467 77	IgA1	IgA1	IgA	0
PW4-F4	BASIC	VH3-48	JH4	DH5-24	5	GCGAGAGAT GCTCCTAGA GATCCGGGG TTTGACTAC	12	4.4290161 13	IgA1	IgA1	IgA	0
PW4-F5	BASIC	VH3-7	JH4	DH5-18	13	GCGAGAGGC CAATACGGCT ATGGTTACCC CCACTTTGAC TTC	14	6.7860717 77	IgA Family	IgA1	IgA	0
PW4-F6	BASIC	VH5-51	JH3	DH7-27	10	GCGAGACGA TTACTAACTG GGGATCGAG GTGGTCCTTT TGATTTC	15	9.5549926 76	IgA1	IgA2	IgA	0
PW4-F8	BASIC	VH3-23	JH6	DH4-17	43	ACGAAACTGA GGAGTTACG GTGACTCCGT CTTCGGGGG CTCCCCTCAC TACATGGACG CC	20	6.4100952 15	IgG1	IgG1	IgG	0
PW4-G1	BASIC	VH5-51	JH5	DH3-22	19	GTGAGACGA GGTGATAGT GTTGGTCACT TCTACAGCTG GATCGACCC C	16	6.7173461 91	IgA1	IgA1	IgA	0
PW4-G12	BASIC	VH3-23	JH4	DH1-26	24	GCGAAGGAC TTGGGTTTCAG GGAGCTCTG CCTTTGACCA C	13	5.2123413 09	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

PW4-G2	BASIC	VH3-23	JH6	DH3-3	25	GCGAAGAAT CGGCTTCAAT TTTTGGAGTG GTTATCCTCT CTGGACGTC	16	6.1141967 77	IgA Family	IgA1	IgA	0
PW4-H1	BASIC	VH3-23	JH6	DH5/OR 15-5a	15	GCGAAAGTG TCTACGCCG GGATTCTCCT ACTACTACGC TATGGACGTC	16	5.8777465 82	unclear	IgA1	IgA	0
PW4-H10	BASIC	VH4-4	JH4	DH2-2	20	GCGAGAGCC CAGTACCACT TTGACATC	9	6.7882690 43	IgA1	IgA1	IgA	0
PW4-H11	BASIC	VH3-30	JH4	DH6-13	32	GCGAGACGT AGTGTCAGCT GGTTGTCCTC CCCTGACTAC	13	8.7902221 68	IgA1	IgA1	IgA	0
PW4-H12	Cloning	VH3-9	JH4	DH3-10	14	GCAAAAGGC TATGGTTCGG GGAATCATTA CCACCTGGC GCCCACTCTT GACTAC	18	6.9568481 45	IgA1	not availabl e	IgA	11
PW4-H2	BASIC	VH3-7	JH4	DH2-8	25	GTGAGGGAT CGGGGTTGT CGAGCTGGT GGCTGTTACC GTGTTTTTGA CTAC	17	8.8986206 05	unclear	IgA1	IgA	18
PW4-H3	BASIC	VH3-21	JH4	DH2-2	16	GCGAGAATC GGAATAGTTC CAGCTGAGC ACTTTGACTT C	13	5.3223266 6	IgA1	IgA1	IgA	0
PW4-H4	Cloning	VH3-9	JH4	DH3-10	21	GCAAAAGGG TATGGTTCGG GGAATTCTTA	18	5.8777465 82	IgA1	not availabl e	IgA	11

Supplemental Table 2 – Heavy Chain Repertoire

						CCCCCTGGC GCCCCACTCTT GACTAC						
PW4-H5	BASIC	VH3-23	JH4	DH3-22	13	GCGAAAGTT GGAGTGAGT AGTGGTTTCC ATGGAAGGG CTTACTACTT TGACCAG	18	8.5463256 84	IgA Family	IgA1	IgA	7
PW4-H8	BASIC	VH3-9	JH4	DH3-10	13	GCAAAAGGG TATGGTTCGG GGAATTCTTA CCCCCTGGC GCCCCACTCTT GACTAC	18	5.8777465 82	IgA Family	IgA1	IgA	19
PW4-H9	BASIC	VH3-9	JH4	DH3-10	11	GCAAAAGGC TATGGCTCG GGGAGTTCTT ACCCCTGG CGCCCCACTCT TGACTAC	18	5.8777465 82	IgA1	IgA1	IgA	19
PW5-C12	Cloning	VH4-4	JH4	DH2-21	21	GCGAGAGAT TGGGATGAG GGCTCATACT TTGACCAG	12	3.8390502 93	IgA1	IgA1	IgA	0
PW5-D1	BASIC	VH4-59	JH5	DH3-22	22	GCGAGACAC GACGCCGTT CCGTATTTTCG GTCATGGCCT CGACCCC	15	5.9822387 7	IgA1	IgA2	IgA	0
PW5-D10	BASIC	VH3-53	JH4	DH2-15	3	GCGAGAGAT CGGGACTATT GTAGTGGTG GTAAGTGCTA CTCCTACTTT GACTAC	18	4.4290161 13	IgA1	IgA1	IgA	0
PW5-D12	BASIC	VH3-7	JH4	DH3-16	12	GTACAGTTAC	6	8.7175903	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						GTATGTAC		32				
PW5-D2	BASIC	VH3-49	JH4	DH1-1	21	ACCAGACTCC CACGCAACC CCCACAACG ACGGTAACGT CCCATTTGAC TCC	17	6.4109497 07	IgA1	IgA1	IgA	0
PW5-D4	BASIC	VH3-49	JH3	DH1-26	11	GCTAGAGATC CGGGGGGAT TCTATGACAG TTATGGTTTT TACTACCTGG GAGCTTTTGA TATC	21	3.9299926 76	IgA1	IgA1	IgA	0
PW5-D5	BASIC	VH3-23	JH4	DH3-9	28	GCGAAGGAG CCCCATAGC GGCAGTTGG TACCCATATT TTGACTAC	15	5.3222045 9	IgA1	IgA1	IgA	0
PW5-D6	BASIC	VH3-23	JH4	DH3-3	37	GCCAAAGGG TCGGCGAAAT TCAAGTCTCA ACAATTCTTG GCTAGGAGT GGTTATACTC AGCGAAGCC ATTTTGACTT C	26	10.446960 45	IgA1	IgA1	IgA	8
PW5-D7	BASIC	VH4-39	JH5	DH7-27	21	GCGAGACTTA CCTCAACTGG GGTCCACGG GAGGGGCTG GTTCGACCC C	16	9.6489868 16	IgA1	IgA2	IgA	0
PW5-D8	BASIC	VH3-74	JH4	DH1-14	0	GCAAGAGTC CCACGCGCA TCGGAATTTG	11	8.7880249 02	IgA Family	IgA2	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						ACTAC						
PW5-D9	BASIC	VH3-23	JH1	DH3-10	10	GCGAAAGAC CCTCCTTATG GTTCGGAGAT CCCCAAGGG GTATTTCCAG CAC	17	6.7931518 55	IgA Family	IgA2	IgA	0
PW5-E1	BASIC	VH3-21	JH6	DH1-1	14	GCGAGAGGA GGGTCCGGG GGCCACAAC TACTACTACG CTTTGGACGT C	16	6.7860717 77	IgA Family	IgA1	IgA	0
PW5-E10	Cloning	VH3-43	JH4	DH3-3	10	GGAAAAGATT TCCGGAGCT ATGAGTGGA GTGGCCTC	12	6.0690307 62	IgG1	IgG1	IgG	0
PW5-E11	BASIC	VH1-46	JH5	DH3-10	30	GCTAGAGATC TGAAAACAAC TCTGGCTCG GGGACTTGTT TTCGGGCAG AATTGGTTCG ACTCC	21	8.7903442 38	IgG1	IgG1	IgG	0
PW5-E2	BASIC	VH3-23	JH6	DH3-10	19	GGGAAATCTA TAGAAAATAT GGTTCGGGG ACTTCTTATC ACTTCATTTG CCTATTATTT CGCTATGGA CGTC	24	6.0682983 4	IgA1	IgA1	IgA	9
PW5-E3	BASIC	VH3-13	JH6	DH3-22	29	CAGAATGACA TCGCTCCAAC TTCTGTTTCA GAACAGCAA CTTCTTCAG	16	3.6659545 9	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

PW5-E4	Cloning	VH3-23	JH4	DH2-21	12	GCGAAAGAT GCCATATCG GGACAGATTT GGTTGCAGG GGACCTTTGA CTAC	17	4.2079467 77	IgA1	IgA1	IgA	24
PW5-E5	Cloning	VH3-23	JH4	DH3-9	14	GCGAAAGAT GGGATATCG AGACAGGTCT GGTTACAGG GGACCTTTGA CTCC	17	6.0049438 48	IgA Family	IgA1	IgA	24
PW5-E6	BASIC	VH3-64	JH6	DH1-26	43	TAACAGCCAC TTGTTCTTCA ATAGCCATGG GAGAATACTG TCCTTGCTTC AGCAACT	19	0	IgA1	IgA1	IgA	0
PW5-F1	Cloning	VH3-30	JH4	DH1-1	13	GCGAAAGAT CAACACAAC ATCCCCCCTA TAATGGGTAC ATTGACTCC	16	5.2123413 09	IgG3	IgG3	IgG	0
PW5-F10	BASIC	VH3-30	JH4	DH2/OR 15-2a	11	GCGAAAGAC GGGGGTGGT TACGAATATT ATCCGTTCCCT TGAGTACTAC TTTGACTAC	19	3.9165649 41	IgG1	IgG1	IgG	0
PW5-F11	BASIC	VH3-48	JH4	DH1-1	22	GCGAGAGAT CAACACTTGA ACGACGGGG TCTTTGACTA C	13	4.4133911 13	IgG1	IgG1	IgG	0
PW5-F12	BASIC	VH4-59	JH3	DH6-19	30	GCGAGGACC ATAGCAGTG GCTGGCACTT	14	5.8811645 51	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						TTGCTTTTGA TATC						
PW5-F4	BASIC	VH1-18	JH6	DH4-17	10	GCCATGATAA ACATGGTATT TATCAGGGG GGATTTTGCC CTTTTATTTAA TTATGGGTAT AAA	21	8.5401000 98	IgG1	IgG1	IgG	0
PW5-F5	Cloning	VH1-3	JH4	DH6-19	29	GCGCGAGAG GGGGGAATG GAAGTGGCT GCCAAATCCC TTGACTAT	15	4.6792602 54	IgG1	IgG1	IgG	0
PW5-F6	BASIC	VH1-46	JH4	DH2-21	23	GCAGTGGTC CAGCTTGGC CTCACGCCA CAACAGCCT GTCAGTGGA	15	5.5700073 24	IgG1	IgG1	IgG	0
PW5-F8	BASIC	VH3-48	JH3	DH3-22	15	GCGAGAGAG TGGGGCGCC GATTACTATG ATACTAGTGG AGATGCTTTT GACATC	18	3.7100219 73	IgG1	IgG1	IgG	0
PW5-F9	BASIC	VH3-30	JH6	DH3-10	20	GCGCGTATG TTCCAATCTT ACGGTATAGA CGTC	11	5.8803100 59	IgG1	IgG1	IgG	10
PW5-G1	BASIC	VH3-30	JH6	DH3-10	18	GCGCGTATG TTCCAATCCT ACGGTATAGA CGTC	11	5.8803100 59	IgG1	IgG1	IgG	10
PW5-G11	BASIC	VH3-64	JH6	DH3-3	27	GCGAAAGGA GGTTACGATG ACTACTACTA CCTCGCTATG	15	3.9299926 76	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						GACGTC						
PW5-G12	BASIC	VH3-74	JH4	DH7-27	17	ACAAGAGACT ACTGGGGAT CCCTTGAGTA C	10	4.3682250 98	IgA1	IgA2	IgA	0
PW5-G2	BASIC	VH3-48	JH4	DH1-26	13	GTGAGGAAA CCTAATAGTG GATCTTATTA TGTCCTTCCC CCTTTTGA CT	17	8.4014282 23	IgG1	IgG1	IgG	0
PW5-G3	BASIC	VH4-39	JH4	DH6-19	4	GCGAGACAT CGCCCGCCG TATAGCAGTG GCTGGTACTC TTGGATTTAC TACTTTGA CT	20	8.4269409 18	IgG Family	IgG1	IgG	0
PW5-G4	BASIC	VH4-61	JH3	DH6-19	18	GCGAGAACA ATAGCAGTG GCTGGTACAT TCGCTTTTGA TATC	14	5.8811645 51	IgG1	IgG1	IgG	0
PW5-G5	Cloning	VH3-23	JH3	DH3-22	29	GCGAAAGAT CACATCGCCT ACAACAGAAA CTATGATGCT TTTGATCTC	16	5.2988891 6	IgA1	IgA1	IgA	0
PW5-H1	BASIC	VH4-34	JH3	DH2-2	25	GCGCGAGAG CGCGGCAAT AGTAGTAGTT GGGGTACTTT TGATATC	15	6.1150512 7	IgA1	IgA1	IgA	0
PW5-H12	BASIC	VH3-9	JH4	DH3-10	6	GCAAAAGGC TATGGTTCGG GGAATTATTA CCCCCTGGC	18	5.8768920 9	IgA1	IgA1	IgA	19

Supplemental Table 2 – Heavy Chain Repertoire

						GCCCACTCTT GACTAC						
PW5-H2	BASIC	VH3-53	JH4	DH1-1	20	GGGAGAGAC ACCCACTCG CCTCAGCGTA GCGACAAC	12	6.7479858 4	IgA1	IgA2	IgA	0
PW5-H3	BASIC	VH3-30	JH4	DH6-13	37	GCTCTGGGC GGCAGCACC TCCACCCCA ACTTTGACTT C	13	3.7998657 23	IgA Family	IgA1	IgA	0
PW5-H4	BASIC	VH4-59	JH4	DH5-12	21	GCGAGAGAC CCTAATAGTG GCTGGCTTG ACTCC	11	4.2079467 77	IgA1	IgA2	IgA	0
PW5-H5	BASIC	VH3-23	JH4	DH6-6	49	GTGAGGTTTG ACGACCTTCA CTTTGGCTCG TCGTCCTACT TTGACTCA	16	4.4132690 43	IgA1	IgA1	IgA	0
PW5-H6	BASIC	VH3-15	JH5	DH1-1	15	ATCACACCTT TCTGGAACC GGCGACCTG CCCTGTCCG ACCCC	14	9.5986938 48	IgA1	IgA2	IgA	0
PW5-H7	BASIC	VH3-21	JH4	DH1-14	21	GCGAGAGAT TGGGATACC CGGAAGTTTG ACTAC	11	6.0833129 88	IgA Family	IgA2	IgA	0
PW5-H8	Cloning	VH3-7	JH4	DH2-8	14	GCGACCGGG AATTTTCATG ATGCTAGTTT TAGCCAGGG AGTG	14	5.0781860 35	IgA Family	IgA1	IgA	0
PW5-H9	BASIC	VH3-9	JH4	DH3-10	7	GCAAAAGGC TATGGTTCGG GGAATTATTA	18	5.8768920 9	IgA1	IgA1	IgA	19

Supplemental Table 2 – Heavy Chain Repertoire

						CCCCCTGGC GCCCCTCTT GACTAC						
PW6-D10	BASIC	VH4-59	JH4	DH6-13	16	GCGAGAGGG GGGGTCGAC CCGTATACCA GCAGCTGGT ACTATTTTGA CTAC	17	4.2079467 77	IgA Family	IgA1	IgA	0
PW6-D12	BASIC	VH3-64D	JH4	DH2-8	8	GTAAGAGGGT ACTTCTTTGA CGAC	8	4.5354614 26	IgA1	IgA1	IgA	15
PW6-D2	BASIC	VH3-11	JH6	DH3-10	11	ACTCTGCCTC CCTCACCATC TCTGGACTGA AGACTGAGG ACG	14	0	IgA1	IgA1	IgA	0
PW6-D3	BASIC	VH3-11	JH6	DH3-10	22	GCGGCGGGT TCGGGGACT TATGACTATT ACGGTCTGG ACGTC	14	3.5636596 68	IgA1	IgA1	IgA	2
PW6-D4	BASIC	VH3-11	JH6	DH3-10	16	GCGGCGGGT TCGGGGAGT TATTCCTACC ACGGTTTGGA CGTC	14	5.0781860 35	IgA1	IgA1	IgA	2
PW6-D5	BASIC	VH3-23	JH4	DH6-19	33	GCGAAGACG CAAGGCAGT GGCTATTTCA TGCACTAC	12	8.5470581 05	IgA Family	IgA1	IgA	5
PW6-D6	BASIC	VH3-11	JH6	DH3-10	12	GCGGCGGGT TCGGGGAGT TATAACTACC ACGGTTTGGA CGTC	14	5.0781860 35	IgA1	IgA1	IgA	2
PW6-D7	BASIC	VH3-23	JH4	DH6-19	36	GCGAAAACG	12	8.5470581	IgA1	IgA1	IgA	5

Supplemental Table 2 – Heavy Chain Repertoire

						CAAGGCAGT GGCTATTTCA TGCACTAT		05				
PW6-D9	BASIC	VH3-30-3	JH6	DH3-9	15	TCGAGAGAG TATTACGACA TTTTGACTGG ACCTGAGGA CTACGACTAC GGTATGGAC GTC	20	3.6598510 74	IgA1	IgA1	IgA	13
PW6-E1	BASIC	VH3-74	JH6	DH1-1	11	GCAAGAGAT CCGGGAGGT ACCAAGTGG ACGGGACCC TACAACACT ACGGTATGG ACGTC	20	4.2079467 77	IgA1	IgA1	IgA	0
PW6-E10	BASIC	VH3-33	JH6	DH3-16	12	GCGAGAGAG GGTCCCGTT GATTATGGGA TGGACGTC	12	4.0280151 37	IgG1	IgG1	IgG	0
PW6-E12	BASIC	VH3-30-3	JH6	DH3-9	21	GCGAGAGAG TTTTACGATT CTTTGACTGG ACCTGTGAC TACGACTACG GTATGGACGT C	20	3.7100219 73	IgG1	IgG1	IgG	13
PW6-E4	BASIC	VH3-30-3	JH6	DH3-9	17	GCGAGAGAG TATTACGATA CTTTGACTGG ACCTGTGGA CTACGACTAC GGTATGGAC GTC	20	3.7100219 73	IgG1	IgG1	IgG	13
PW6-E5	BASIC	VH3-30	JH6	DH3-3	17	GCGAGAGAA AGGGATGTTA	22	4.3600463 87	IgG1	IgG1	IgG	0

Supplemental Table 2 – Heavy Chain Repertoire

						TTACGGTTTT TGGAGTGGGA CCGCCCTTAC GACTACGGTA TGGACGTC						
PW6-E6	BASIC	VH4-39	JH3	DH6-13	31	GCGAGCGGC AGCTTTGATG CTTTTCATAT C	10	5.0781860 35	IgG Family	IgG3	IgG	0
PW6-E8	BASIC	VH3-30-3	JH6	DH3-9	29	GCAAGAGAG TATTACGATA CTTTGACTGG ACCTGTGGA CTACGATTAC GGAATGGAC GTC	20	3.7100219 73	IgG1	IgG1	IgG	13
PW6-E9	BASIC	VH3-49	JH4	DH3-22	20	GCCTATGATA GTAGTGGTG CGACAGACAT CGTTCTTGCG GACCAC	15	3.9259643 55	IgG1	IgG1	IgG	0
PW6-F1	BASIC	VH3-23	JH4	DH3-3	10	GCGAAAGAT CCCATTACGT TTTTTGGAGT GATTTATGAC TCC	14	4.2079467 77	IgG1	IgG1	IgG	0
PW6-F10	BASIC	VH3-30	JH5	DH6-19	29	AATGGGGGC TTCAATCGGG AGTACTACTC GATTGTCAAC GTCAAG	15	8.4967651 37	IgA Family	IgA2	IgA	0
PW6-F11	BASIC	VH3-30	JH4	DH1-26	12	GCGAAGGAT CGGGGGAAG TATAGTGGA GCTTGGGGC TTGACTAC	15	8.4732055 66	IgA1	IgA1	IgA	0
PW6-F12	BASIC	VH3-21	JH6	DH3-10	28	ACGAGAGAC	19	3.9295043	IgA	IgA2	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						GACGCCTAC GGTGGCCCC AATTGGTATT ACTACTACCC TATGGACGTC		95	Family			
PW6-F5	BASIC	VH4-39	JH4	DH2-21	13	GCGAAATGG GACTCCCGT GACTTACTTG ACTAC	11	4.4290161 13	unclear	IgG1	IgG	0
PW6-F6	BASIC	VH3-21	JH4	DH4-23	16	GCGAGACAT CATCTCTCGT CGGTCTTAAC TCCG	11	9.8056030 27	IgG1	IgG1	IgG	0
PW6-F7	BASIC	VH3-30	JH6	DH5-24	12	GCGAAAGTA GGGGGGTGG CTCCTCACGA ACGAGATGG ACGTC	14	4.3703002 93	IgG1	IgG1	IgG	0
PW6-F8	BASIC	VH3-30-3	JH6	DH3-9	18	GCGAGAGAG TATTACGATG TTTTGACTGG ACCTGTGGA CTACGACTAC GGTATGGAC GTC	20	3.7100219 73	unclear	IgG1	IgG	13
PW6-F9	BASIC	VH3-73	JH4	DH2-15	6	ACTAGCCACC CTCCTAAGAA TCCAGATTAT TGTAGTGGTG GAAACTGCTA CCCGGCGGA CTTTGACTAC	23	4.4115600 59	IgA Family	IgA2	IgA	0
PW6-G1	BASIC	VH3-30	JH4	DH4-17	16	CTACAAACTC CTCCCACTTT TGGCCAGGG GACCAAGCT GGAGATCAAA	18	9.9943237 3	IgA Family	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

						CGAACT						
PW6-G10	Cloning	VH3-53	JH6	DH2/OR 15-2a	19	GCGCGAGAC CGATATCATG ATGCTAGCG GTTACTACTA CTACnot availableCTAT GGGATGGAC GTC	20	5.2988891 6	IgA Family	IgA1	IgA	0
PW6-G11	BASIC	VH4-34	JH6	DH3-10	20	GCGAGAGGC CTTCCGGTTA ACATGGTTCG GGGAGTTCA AAGGGCCTA CCAGGATATG GACGTC	21	8.7879028 32	IgA1	IgA1	IgA	0
PW6-G12	BASIC	VH4-4	JH2	DH3-16	20	GCGAGAGCC GTGTATCATT ATGTTAGTGA TGGTTTGGGT GAAGAATACT TCGATCTC	19	4.3082885 74	IgA Family	IgA1	IgA	0
PW6-G2	BASIC	VH3-23	JH4	DH3-9	26	GCGAAAGAC CGGGGTGGT TATCTACATT CATATTTTGA CAAC	14	6.7893676 76	IgA1	IgA1	IgA	0
PW6-G4	BASIC	VH3-15	JH4	DH2/OR 15-2a	23	ACCACGGGT TCGAATTTTG GAATTGTAAC GACCGCCGA AGACTAC	15	3.6655883 79	IgA Family	IgA2	IgA	0
PW6-G6	BASIC	VH3-23	JH4	DH7-27	16	GCGAAATCTC TGGGTCGCG ACTTCGCCCT CCTGTTTGAC TTC	14	6.0049438 48	IgA1	IgA1	IgA	0

Supplemental Table 2 – Heavy Chain Repertoire

PW6-G7	BASIC	VH3-33	JH6	DH3/OR 15-3a	13	GTGAGAGAT CTGGATGAG GTGGACTACT ACTACATGGA CGTG	14	3.7100219 73	unclear	IgA Family	IgA	0
PW6-G9	BASIC	VH4-59	JH4	DH2/OR 15-2a	16	GCGAGAGGG GGTCCGGAC GATGGTAATT GGAAGTACTA CATTGACTTC	16	4.4290161 13	unclear	IgA1	IgA	0
PW6-H5	BASIC	VH3-64D	JH3	DH5-12	9	GTGAAAGTCC GGGTGACGT CTAGTGCCTA CGATTTACCC CATGTC	15	8.5687866 21	IgA Family	IgA2	IgA	0
PW6-H7	BASIC	VH3-9	JH4	DH3-10	14	GCAAAAGGC TATGGTTCGG GGAATTCTTA CCCCCTGGC GCCCACTCTT GACTAC	18	5.8777465 82	IgA1	IgA1	IgA	19
PW6-H8	BASIC	VH3-9	JH4	DH3-10	16	GCAAAAGGC TATGGTTCGG GGAATCATT CCCCCTGGC GCCCACTCTT GACTAC	18	6.7849731 45	IgA1	IgA1	IgA	19

Supplemental Table 2 – LC repertoire 1

	LC.Seq. Source	V.locus	J.locus	IgBLAST mutation count	CDR3.DNA	CDR3. length	CDR3. isoelectric.point	Isotype
PW2-A1	BASIC	VK1-5	JK4	3	CAACAGTATACT GATTATGTCACT	8	3.799865723	Kappa
PW2-A10	BASIC	VL3-21	JL3	14	CAGGTGTGGGA TACTAGTCGTGA TCATCAGGTG	11	5.210876465	Lambda
PW2-A11	BASIC	VK1-5	JK1	12	CAACAGTATAAC AGATATCCGTG GACG	9	8.589660645	Kappa
PW2-A12	BASIC	VL1-40	JL1	5	CAGTCGTATGAC AGCAGCCTGAG TGGTTTTATGT C	12	3.799865723	Lambda
PW2-A2	BASIC	VL3-25	JL3	16	CAATCAGCAGA CAGCAGAGGTA CTTTTCGGGTG	11	9.598693848	Lambda
PW2-A3	BASIC	VL1-40	JL1	9	CAGTCGTTTGAC GCCTATTTGAGT GATTCTGAATGTC	12	3.563659668	Lambda
PW2-A4	BASIC	VL3-21	JL3	11	CAGGTGTGGGA TAGCAGTAGTGA TTGGGTG----TT	12	3.563659668	Lambda
PW2-A5	BASIC	VL3-25	JL3	11	CAATCAGCAGG CAACAGTGCTAC TTGGG-----TG	12	5.524963379	Lambda
PW2-A6	BASIC	VK1-39	JK4	18	CAACAGAGTTAC AGTTCCATCACT	8	5.524353027	Kappa
PW2-A7	BASIC	VL3-1	JL1	23	CAGGTGTGGGA CACCAGCGCCA GCGCACATGTC	11	5.076721191	Lambda
PW2-A8	BASIC	VL2-14	JL3	9	TGCTCATATGCA GACAGCGCCAC TCGGGTG	10	5.828674316	Lambda
PW2-B1	BASIC	VK1-39	JK4	16	CAACAGAGTTAC AGTCACTTTCTC	9	6.74017334	Kappa

Supplemental Table 2 – LC repertoire 1

					ACT			
PW2-B10	BASIC	VL3-21	JL3	8	CAGGTGTGGGA TAGTAGTAGTGA	11	4.196716309	Lambda
					TCATCCGGTG			
PW2-B11	BASIC	VK3-11	JK3	10	CAGCAGCGTGT CAACTGGCCCT	11	9.750061035	Kappa
					CGGGATTCACT			
PW2-B12	BASIC	VK1D-12	JK5	26	CAACAGGCTAA CAGTTTCCCGAT	9	5.524963379	Kappa
					CACC			
PW2-B2	BASIC	VL2-11	JL3	6	TGCTCATATGCA GGCAGCTACAC	12	5.516784668	Lambda
					TTGGGTG-----			
PW2-B3	BASIC	VK1-39	JK4	13	CAACAGAGTTAC AGTTCCATCACT	8	5.524353027	Kappa
					CAGCAGCGTAG			
PW2-B4	BASIC	VK3-11	JK4	24	CCACTGGCTCT	10	9.756530762	Kappa
					CTTTC---			
PW2-B6	BASIC	VK3-11	JK3	8	CAGCAGCGTGT CAACTGGCCCT	11	9.750061035	Kappa
					CGGGATTCACT			
PW2-B7	BASIC	VK3-11	JK3	8	CAGCAGCGTGT CAACTGGCCCT	11	9.750061035	Kappa
					CGGGATTCACT			
PW2-B8	BASIC	VK3-11	JK3	10	CAGCAGCGTGT CAACTGGCCCT	11	9.750061035	Kappa
					CGGGATTCACT			
PW2-B9	BASIC	VK3-11	JK3	9	CAGCAGCGTGT CAACTGGCCCT	11	9.750061035	Kappa
					CGGGATTCACT			
PW2-C11	BASIC	VL3-1	JL1	13	CAGGCGTGGGA CAGCAGCACTG	9	3.799865723	Lambda
					CAGTC			
PW2-C12	BASIC	VL3-1	JL1	21	CAGGCGTGGGA CAGGAACAATG	9	5.836364746	Lambda
					CTGTC			

Supplemental Table 2 – LC repertoire 1

PW2-C2	BASIC	VK1D-12	JK5	8	CAACAGGCTAA CAGTTTCCCGAT CACC	9	5.524963379	Kappa
PW2-C5	BASIC	VK3-11	JK3	12	CAGCAGGGTGT CAACTGGCCCT CGGGATTCACT	11	5.524963379	Kappa
PW2-C6	BASIC	VK3-11	JK3	10	CAGCAGCGTGT CAACTGGCCCT CGGGATTCACT	11	9.750061035	Kappa
PW2-C7	BASIC	VK3-11	JK3	13	CAGCAGGGTGT CAACTGGCCCT CGGGATTCACT	11	5.524963379	Kappa
PW2-C8	BASIC	VK1D-12	JK5	3	CAACAGGCTGA CAGTTTCCCGAT CACC	9	3.799865723	Kappa
PW2-C9	BASIC	VK1-12	JK5	17	CAACAGGCTAA CAGTTTCCCGAT CACC	9	5.524963379	Kappa
PW2-D1	BASIC	VK1-6	JK4	10	CTACAAGATCAC AGTTACCCGCTC ACT	9	5.076721191	Kappa
PW2-D11	BASIC	VK1-39	JK2	16	CAACAGAGTTAC AGTACCCCTCG GACT	9	8.747619629	Kappa
PW2-D12	BASIC	VK1-39	JK1	24	CAACAGAGTTAC ATTTTACCTAGA ACC	9	8.747619629	Kappa
PW2-D2	BASIC	VL1-44	JL3	15	TCATCATGGGAT GCCAACGTGAA TGGTCCGGTG	11	3.799255371	Lambda
PW2-D3	BASIC	VL1-44	JL3	11	TCAACATGGGAT GACGGCCTGAA TGGTTGGG----	13	3.563415527	Lambda
PW2-D4	BASIC	VK3-20	JK3	13	TGTT CAGCACTATGG GGGCTCACGGG AATTCACT	10	6.748718262	Kappa

Supplemental Table 2 – LC repertoire 1

PW2-D5	BASIC	VL2-8	JL2	11	AGTTCATACGGC GGCAACGCTAA	10	5.239807129	Lambda
PW2-D6	BASIC	VK3-11	JK4	9	TGTCTTA CTGCAGCGTGA CAACTGGCCGC	9	5.836364746	Kappa
PW2-D7	BASIC	VL2-11	JL2	5	TCACT TGCTCATATGCA GGCAGTTACACT	11	5.516784668	Lambda
PW2-D8	BASIC	VL7-43	JL3	2	TTCGTGGTA CTGCTCTATTAT GGTGGTGGTTG	9	5.523620605	Lambda
PW2-D9	BASIC	VL7-43	JL3	3	GGTG CTGCTCTATTAC GGTGGTGGTTG	9	5.523620605	Lambda
PW2-E1	BASIC	VL2-18	JL1	16	GGTG AGCTCACATACA AGCAGCAGTCTT	10	6.456115723	Lambda
PW2-E10	BASIC	VL3-21	JL2	16	TATGTC CAGGTGTGGGA TATTAGTGGTGA	13	4.353088379	Lambda
PW2-E11	BASIC	VL3-21	JL2	13	ACATGTGGT---- TTT CAGGTGTGGGA	11	4.196716309	Lambda
PW2-E12	BASIC	VK2-30	JK2	5	TGTTAGTGGTGA TCATCTGGTA ATGCAAGGTACA	9	6.491027832	Kappa
PW2-E2	BASIC	VL1-40	JL3	10	CACTGGCCGTA CACT CAGTCGTATGAC	11	5.835632324	Lambda
PW2-E3	BASIC	VL3-25	JL3	10	AGGGTGAGTGG TCCTGTGGTG CAATCAGCTGAC	11	9.598693848	Lambda
PW2-E4	BASIC	VK2-30	JK2	9	AGCCGTGGTAC TTTTCGAGTG ATGCAAGGTACA	9	6.491027832	Kappa
					CACTGGCCGTA CACT			

Supplemental Table 2 – LC repertoire 1

PW2-E5	BASIC	VK3-11	JK3	10	CAGCAGCATCA CAACTGGGATG TCACT GCAACATGGGA	9	5.968811035	Kappa
PW2-E6	BASIC	VL1-44	JL3	7	TGACAGCCTGG ATGGTTGGGT---- GTT CAGGCGTGGGA	13	3.422790527	Lambda
PW2-E7	BASIC	VL3-1	JL1	9	CAGGAGCACTC ATTATGTC CAACACTATGCT	10	6.743591309	Lambda
PW2-E8	BASIC	VK1-5	JK2	10	AATTATTTGTAC ACT CAGGTGTGGGA	9	6.738342285	Kappa
PW2-E9	BASIC	VL3-21	JL2	15	TATTAGTGGTGA TCATGTGGTT---- TT CAGGTGTGGGA	13	4.196716309	Lambda
PW2-F1	BASIC	VL3-21	JL2	11	TGTTAGTGGTGA TCATCTGGTA CAGGTGTGGGA	11	4.196716309	Lambda
PW2-F11	BASIC	VL3-21	JL2	13	TATTAGTGGTGA TCATGTGGTT---- TT ATGCAAGGTACA	13	4.196716309	Lambda
PW2-F12	BASIC	VK3-20	JK2	4	CACTGGCCCTA CAGT CATTAAACAGAN	9	6.491027832	Kappa
PW2-F2	Cloning	VL3-25	JL2	47	NNCAGTGGTAC NNTNTTN GGAACATGGGA	10	0	Lambda
PW2-F3	BASIC	VL1-51	JL1	13	TAGCAGCCTGA GTGTTTATGTC CAGGTGTGGGA	11	3.799865723	Lambda
PW2-F4	BASIC	VL3-21	JL2	11	TGTTAGTGGTGA TCATCTGGTA CAACAGAGTTAC	11	4.196716309	Lambda
PW2-F5	BASIC	VK1-39	JK3	23		9	5.524353027	Kappa

Supplemental Table 2 – LC repertoire 1

PW2-F6	BASIC	VK1-12	JK1	10	GGTCCCCCTATC AGT CAACAGGCTAA CAGTTTCCGGT GGACG	9	9.750061035	Kappa
PW2-F7	BASIC	VK1-39	JK4	15	CAGCAGAGTTA CACAACCCCTC CACTCACC	10	5.524353027	Kappa
PW2-F8	BASIC	VK1-5	JK2	13	CAACAGTATAGG AGTTATCCTCTG ACT	9	8.589660645	Kappa
PW2-F9	BASIC	VL3-19	JL2	16	TGCTCCCGGGA CACCACCGAGA ACCACCATGTG GTT	12	5.99041748	Lambda
PW2-G1	BASIC	VL1-40	JL3	9	CAGTCTTATGAC TCCAGCCTGGG TGGTTCGGTG	11	3.799865723	Lambda
PW2-G10	BASIC	VK3-20	JK4	1	CAGCAGTATGG TAGCTCACCTTT CACT	9	5.524353027	Kappa
PW2-G11	BASIC	VL2-14	JL3	3	AGCTCATATACA AGCAACACTCTT TGGGTG	10	5.239807129	Lambda
PW2-G12	BASIC	VK3-20	JK4	6	CAGCAATATGGT AGCTCTCCCATC ACT	9	5.524353027	Kappa
PW2-G2	BASIC	VL6-57	JL3	15	CAGTCTTTTGTT GGCAGTCTTTG GCTG	9	5.524963379	Lambda
PW2-G3	BASIC	VL1-40	JL3	23	CAGTCTTATGAC ACCAGTCTGGG TGGTTCGGTG	11	3.799865723	Lambda
PW2-G4	BASIC	VK4-1	JK2	14	CAGCAATATTAC AGTACTCCGTTC ACT	9	5.523620605	Kappa
PW2-G6	BASIC	VL3-1	JL2	23	CAGGCGTGGGA	11	5.836364746	Lambda

Supplemental Table 2 – LC repertoire 1

PW2-G7	BASIC	VL1-40	JL3	17	TCGCACCACTGT GAT-----A CAGTCCTATGAC AGCAGCCTGAG TGGTTCCTGGG TG	12	3.799865723	Lambda
PW2-G8	BASIC	VL2-23	JL3	30	TGCTCATATGTG CATCCTGACAGT TTCAAG GCAGCATGGGA	10	6.733581543	Lambda
PW2-G9	BASIC	VL1-44	JL3	5	TGACAGCCTGA ATGGTTGGGT---- GTT	13	3.563659668	Lambda
PW2-H1	BASIC	VL2-23	JL3	18	TGCTCATTTGCA GGTCGTAATACT TGGGTTT-----	12	8.249694824	Lambda
PW2-H2	BASIC	VK3-11	JK4	10	CAGCAGCGTAG CGACTGGCCTC TCGCT	9	5.836364746	Kappa
PW2-H3	BASIC	VK1-17	JK1	11	CTGCAGCATAAT TCTTTCCCGTGG ACG	9	6.741149902	Kappa
PW2-H4	BASIC	VK3-11	JK5	3	CAGCAGCGTAG GAACTGGCCCA TCACC	9	12.00006104	Kappa
PW2-H5	BASIC	VL1-47	JL3	12	GCAACATGGGA TGACAGCCTGC GTGGTTGGG----- TGTT	13	4.207946777	Lambda
PW3-A1	BASIC	VL1-40	JL2	9	CAGTCCTATGAC AGCAGCCTGAC TAATTCGATA	11	3.799865723	Lambda
PW3-A10	BASIC	VK2-30	JK2	14	ATGCAAGCTACA TACTGGCCGTA CACT	9	5.274597168	Kappa
PW3-A11	BASIC	VK3-11	JK5	5	CAGCAGCGTAG CAACTGGCCTC	10	9.750061035	Kappa

Supplemental Table 2 – LC repertoire 1

					CGATCACC			
PW3-A12	BASIC	VK1-39	JK1	8	CAACACAGTTAC			
					AATACCCCTCG	9	8.754821777	Kappa
					GACG			
PW3-A2	BASIC	VL6-57	JL3	20	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW3-A3	BASIC	VK4-1	JK4	4	CAGCAATATTAT			
					ACTACTCTGCGC	9	8.589660645	Kappa
					ACT			
PW3-A4	BASIC	VL6-57	JL3	20	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW3-A5	BASIC	VL6-57	JL3	19	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW3-A6	BASIC	VK3-20	JK2	9	CAGCAGTATGG			
					TGGCTCACCGT	9	5.523620605	Kappa
					ACACC			
PW3-A7	BASIC	VL2-18	JL3	6	ATTTTCATATACG			
					AGCAGCAGCAC	12	5.524353027	Lambda
					TTGGG-----TG			
PW3-A8	BASIC	VK3-15	JK3	2	CAGCAGTATAAT			
					AACTGGCCCCG	10	8.747619629	Kappa
					ATTCACC			
PW3-A9	BASIC	VL3-9	JL3	14	CAGGTGCGCGA			
					CAGCGGCACTT	11	5.836364746	Lambda
					GGG----TGTT			
PW3-B1	BASIC	VL3-9	JL3	11	CAGGTGTGGGA			
					CAGCAGCTCTT	11	3.799865723	Lambda
					GGGTG----TT			
PW3-B10	BASIC	VL2-14	JL2	10	AGCTCATATAGA			
					ATCACCACCACT	11	8.46282959	Lambda
					CTTGTGGTA			
PW3-B11	BASIC	VL2-14	JL2	12	AGCGCATATAGA			
					AGCAGCAGCAC	11	8.46282959	Lambda
					TCTTGTGGTA			

Supplemental Table 2 – LC repertoire 1

PW3-B12	BASIC	VL1-40	JL2	7	CAGTCCTATGAC AGCAGCCTGAG TGGTTCGCTT	11	3.799865723	Lambda
PW3-B3	BASIC	VL2-14	JL2	8	AGCTCATATAGA ATCAGTAGCACT CTTGTGGTC	11	8.46282959	Lambda
PW3-B4	BASIC	VL2-14	JL3	8	TGCTCATATAGA AGCAGCACCAC TCTTGTGGTG	11	8.221984863	Lambda
PW3-B5	BASIC	VL1-44	JL1	3	GAAGCATGGGA TGACAGCCTGA AGGAGGTT	10	3.916564941	Lambda
PW3-B6	BASIC	VL7-46	JL3	10	TTGGTCTCTTAT ACTCTTGGTTCG GCCGGTG	10	8.747619629	Lambda
PW3-B7	BASIC	VK1-39	JK2	24	CAACACGGTCA CATAGGTCCGT CCACT	9	6.917663574	Kappa
PW3-B8	BASIC	VL1-40	JL3	2	CAGTCCTATGAC AGCAGCCTGAG TGGTTGGGT----- G	13	3.799865723	Lambda
PW3-B9	BASIC	VK3-15	JK3	5	CAGCAGTATAAT AACTGGCCTATA TTCACT	10	5.524353027	Kappa
PW3-C10	BASIC	VL1-47	JL3	11	GCAGCATGGGA TGACAACCTGA GTGGTCTGCTG	11	3.563659668	Lambda
PW3-C12	BASIC	VK1-17	JK1	3		0	0	Kappa
PW3-C2	BASIC	VL1-40	JL3	9	CAGACCTATGAC AGCAGGCTGAG TGCTTGG----- GTG	13	5.835632324	Lambda
PW3-C3	BASIC	VL2-14	JL2	10	AGCTCATATAGA AGCAGCAGCAC TCTTGTGATA	11	8.46282959	Lambda

Supplemental Table 2 – LC repertoire 1

PW3-C5	BASIC	VL2-14	JL2	11	AGCGCATATAGA AGCAGCAGCAC TCTTGTGGTA	11	8.46282959	Lambda
PW3-C6	BASIC	VL2-14	JL2	12	AGCTCATATAGA GTCAGCAACACT CTTGTGGTA	11	8.46282959	Lambda
PW3-C9	BASIC	VK3-15	JK4	1	CAGCAGTATAAT AACTGGCCTCC GCTCACT	10	5.524353027	Kappa
PW3-D1	BASIC	VL3-21	JL2	8	CAGGTGTGGCA TCGTTATAGTGA TCATATGATA	11	6.918395996	Lambda
PW3-D10	BASIC	VK2-28	JK2	7	ATGCAAGCTCTA CAAACCCCGTTC ACC	9	5.274963379	Kappa
PW3-D11	BASIC	VK2-28	JK2	7	ATGCAAGCTCTA CAAACCTCCGTTC ACT	9	5.274963379	Kappa
PW3-D12	BASIC	VK1-39	JK2	14	CAACAGGCTTAC AGAAGTTCGTCT ACT	9	8.747619629	Kappa
PW3-D2	BASIC	VK1-17	JK1	5	CTACAGCATAAT AGTTACCCCGG GACG	9	8.754821777	Kappa
PW3-D4	BASIC	VL3-9	JL3	12	CAGGTGTGGGA CAGCAGTTCTTA TTGGGTG	10	3.799865723	Lambda
PW3-D5	BASIC	VL3-21	JL3	9	CAGGTGTGGGA AACTGGAAGTG ATCATTGGG----	13	4.353088379	Lambda
PW3-D6	BASIC	VL3-21	JL2	9	TGTT CAACTGTGGGA TGGTGGTAGTG ATAATTCGGGG	12	3.563659668	Lambda
PW3-D9	BASIC	VK1-39	JK2	20	GTA CAACAGGGTTA CAGAACCCCGT	9	8.747619629	Kappa

Supplemental Table 2 – LC repertoire 1

PW3-E1	BASIC	VL2-8	JL2	1	CTACT AGCTCATATGCA GGCAGCAACAA	12	5.239807129	Lambda
PW3-E3	BASIC	VK3-15	JK1	8	TGT----GGTATT CAGCAGTATAAC CGGCGGAGTTC	8	10.83502197	Kappa
PW3-E4	BASIC	VK1-39	JK2	16	G CAACAGGCTTAC AGAGCCTCGTC	9	8.747619629	Kappa
PW3-E7	BASIC	VK3-11	JK1	7	TACT CAGCAGCGTAG CGAGTGGCCTC	9	9.598815918	Kappa
PW3-E9	BASIC	VK1-39	JK2	13	GAACG CAGCAGGGTTA CAGAGCCCCGT	9	8.747619629	Kappa
PW3-F10	BASIC	VK3-11	JK1	24	CCACT CAGCAGCGAAG CAACTGGCCTCT	9	9.750061035	Kappa
PW3-F11	BASIC	VL1-44	JL2	13	CACG GCAACTTGGA TGACAGTCTAAA	11	3.563659668	Lambda
PW3-F12	BASIC	VK2-28	JK2	3	TGGTGCGATC ATGCAAGTTCTA CAAAGTCTCC	10	5.274719238	Kappa
PW3-F2	BASIC	VK3-15	JK2	13	GTAACT CAGCAGTATAAT TACTGGCCTTAC	9	5.522888184	Kappa
PW3-F3	BASIC	VK1-39	JK2	14	ACT CAACAGGGTTA CAGAACCCCGT	9	8.747619629	Kappa
PW3-F4	BASIC	VK1-5	JK1	11	CCACT CAACAGTATTAT ACTTCTTTTGG	9	5.523620605	Kappa
PW3-F6	BASIC	VK1-33	JK3	12	ACG CAACAGTATGTT TTC	5	5.524353027	Kappa

Supplemental Table 2 – LC repertoire 1

PW3-F7	BASIC	VK1-33	JK4	10	CAACAATATGAT AATTTCTTTCT	8	3.799865723	Kappa
PW3-F8	BASIC	VL7-46	JL3	13	TTGCTCTCCTAT GGTGCTGCTTG GGTGT-----T	13	5.524353027	Lambda
PW3-F9	BASIC	VL3-21	JL3	7	CAACTGTGGGA TAGTAGTGGTGA TGATTCGGGGG TG	12	3.422790527	Lambda
PW3-G1	BASIC	VL1-51	JL3	2	GGAACATGGGA TAGCAGCCTGA GTGCTGTGGTG	11	3.799865723	Lambda
PW3-G10	BASIC	VK1-39	JK4	19	CAGTCGAGTTAC ACTACCCCGTCT CAGCAGCGTAG	8	5.524353027	Kappa
PW3-G12	BASIC	VK3-11	JK5	4	CAACTGGCCTC CGATCACC CAACAGTATAAT	10	9.750061035	Kappa
PW3-G2	BASIC	VK3-15	JK5	13	AACTGGCCTCC GATCACC CGTCTATGTAGC	10	5.524353027	Kappa
PW3-G3	BASIC	VK2-28	JK1	6	AAAATAGTGGGA AGA CAACAGTATGAT	9	10.8604126	Kappa
PW3-G4	BASIC	VK1-33	JK2	9	GAACTCCCCCT CACT CAACAATATGGT	9	3.66595459	Kappa
PW3-G5	BASIC	VK3-20	JK4	16	AACTCACCCCTC AAC CACCAATATTAT	9	5.524353027	Kappa
PW3-G6	BASIC	VK4-1	JK1	12	GGTGCTCCGTG GACG CAACAGTATGAT	9	6.739196777	Kappa
PW3-G7	BASIC	VK1-33	JK5	6	AATGTCCCGATC ACC CAGCAGCGTTA	9	3.799865723	Kappa
PW3-G8	BASIC	VK3-11	JK4	7	CAAGTGGCCTC	10	9.99432373	Kappa

Supplemental Table 2 – LC repertoire 1

					CGCTCACT			
PW3-G9	BASIC	VL3-21	JL2	5	CAGGTGTGGAA TAGTACTATGGT C	8	5.524963379	Lambda
PW3-H1	BASIC	VL2-8	JL2	5	AGCTCATATGGA GGCAGTAACAAT GTAATA	10	5.239807129	Lambda
PW3-H10	BASIC	VL1-44	JL1	6	GCAGTATGGGA TGACAGCCTGA ATGCTTATGTC	11	3.563659668	Lambda
PW3-H11	BASIC	VL3-9	JL3	7	CAGGTGCGGGA CAGCAACACTTG G----GTGTT	11	5.836364746	Lambda
PW3-H12	BASIC	VL2-14	JL2	4	AGTTCATATACA ACCAGCATCACT CCCCATGTGATA	12	6.456115723	Lambda
PW3-H3	BASIC	VL3-25	JL2	11	CAATCAGTAGAC ATCACTGCTACT TTTGGA	10	3.799865723	Lambda
PW3-H4	BASIC	VL3-21	JL1	15	CAGGTGTGGGA TACTAATAGTGA TCATTTTGTC	11	4.196716309	Lambda
PW3-H5	BASIC	VK3-11	JK5	4	CAGCAGCGTAG CAACTGGCCTC CGATCACC	10	9.750061035	Kappa
PW3-H6	BASIC	VK3-15	JK1	8	CGCAGGTCGCC TGGTTCTAGGAA TAATGGG	10	12.30108643	Kappa
PW3-H7	BASIC	VL3-9	JL3	9	CAGGTTTGGGA CGCCAGCACTG TGGTG	9	3.799865723	Lambda
PW3-H8	BASIC	VK3-11	JK5	3	CAGCAGCGTAG CAACTGGCCTC CGATCACC	10	9.750061035	Kappa
PW3-H9	BASIC	VL2-14	JL2	7	ACCTCATATACA AGCACCATCACT G----TGGTATT	12	5.184875488	Lambda

Supplemental Table 2 – LC repertoire 1

PW4-C10	BASIC	VL1-44	JL3	9	GCAACATGGGA TGACAGCCTGG ATGGTTGGG----	13	3.422790527	Lambda
PW4-C11	BASIC	VL1-44	JL3	14	TGTT GCCACATGGGA TGACAGCCTGG ATGGTTGGG----	13	3.422790527	Lambda
PW4-C4	BASIC	VK1-33	JK4	25	TGTT CAGCAGTATCGT CGTTTCCCTCCA GCT	9	10.83502197	Kappa
PW4-C6	BASIC	VL3-21	JL3	10	CAGGTGTGGGA TAGTAGTTGTGA TTGTTGGGTG	11	3.563659668	Lambda
PW4-C7	BASIC	VL3-25	JL1	6	CACTCAGCAGA CAGCAGTGCTAT TTATGTCTTCG---	14	5.076721191	Lambda
PW4-C8	BASIC	VL3-21	JL2	17	----- CAGGTGTGGGA TAGCAGTGGTG ATCCTCATGTGG TT	12	4.196716309	Lambda
PW4-C9	BASIC	VL1-44	JL3	9	GCAACATGGGA TGACAGCCTGG ATGGTTGGGT----	13	3.422790527	Lambda
PW4-D1	BASIC	VL6-57	JL3	23	GTT CAGTCTTATGAA GGCAGCAATTG GGT----GTT	11	3.999694824	Lambda
PW4-D10	BASIC	VK1-33	JK3	8	CAACGGTATGA CAGCCTCCGGG TCACT	9	8.745300293	Kappa
PW4-D11	BASIC	VK1-33	JK2	14	CAACAGTATGAT CATCTCCCGTAC ACT	9	5.076721191	Kappa
PW4-D12	BASIC	VK3-20	JK2	17	CAGCAGTATGG TAATTCACAGTA	9	5.523620605	Kappa

Supplemental Table 2 – LC repertoire 1

PW4-D2	Cloning	VK3-15	JK2	7	CACT CAGCAGTGGTA CACT	5	5.524353027	Kappa
PW4-D3	BASIC	VK3-20	JK1	7	CACCAGTATGG CAGCTCACCTCA AACG	9	6.74017334	Kappa
PW4-D4	Cloning	VK1-5	JK1	15	CAACAATATATT AGGTACCCGTG GACG	9	8.589660645	Kappa
PW4-D5	BASIC	VL3-25	JL1	10	CAATCAGCAGA CAGCAGTGGAA CTTATGTCTTCG	14	3.799865723	Lambda
PW4-D6	Cloning	VK2-30	JK2	13	----- ATGCAAGGTACA CACTGGCCGTA TACT	9	6.491027832	Kappa
PW4-D7	BASIC	VK2-28	JK2	8	ATGCAAGCTCTA CAAACCCCGTA CACT	9	5.274719238	Kappa
PW4-D9	BASIC	VK1-39	JK4	14	CAACAGAGTTAC AGTCCCTTTCTT ACT	9	5.524353027	Kappa
PW4-E1	BASIC	VL3-21	JL2	27	CAGGTGTGGGA CAGTAGTAATGA CCATCGCGTA	11	5.210876465	Lambda
PW4-E10	BASIC	VK1-39	JK4	14	CACCATGCAGG AGAAGGTGTCC CCCTT	9	5.98236084	Kappa
PW4-E2	BASIC	VK4-1	JK1	3	CAGCAATATTAT AGTGCTCCTCTA ACG	9	5.523620605	Kappa
PW4-E3	BASIC	VK3-20	JK2	0	CAGCAGTATGG TAGCTCACCTCC GTACACT	10	5.523620605	Kappa
PW4-E4	BASIC	VK1-5	JK2	17	CAACAATATAGT AGTTATCCTCTG ACT	9	5.523620605	Kappa

Supplemental Table 2 – LC repertoire 1

PW4-E5	Cloning	VL3-25	JL3	23	CAATCATCAGAC AGCGGTAAAG TCGGGTG GCAGCATGGGA	10	8.747741699	Lambda
PW4-E6	BASIC	VL1-47	JL3	10	TGACAGCCTGA GTGGTTGGG---- TGTT AGTGCATTTGCA	13	3.563659668	Lambda
PW4-E7	BASIC	VL2-11	JL3	7	GGCAGCCACAC CTTGTTCCGGC CAGCAGTATGG	11	6.456481934	Lambda
PW4-E8	BASIC	VK3-20	JK1	13	TAGTTCACCTCG GACG CAGGTGTGGGA	9	8.747619629	Kappa
PW4-E9	BASIC	VL3-21	JL2	11	TGTTAGTGGTGA TCATACGGTA CAGCAGTATAAT	11	4.196716309	Lambda
PW4-F1	BASIC	VK3-15	JK4	1	AACTGGCCTCA GCTCACT ACAGGTGCCAT	10	5.524353027	Kappa
PW4-F10	BASIC	VL2-14	JL2	6	CTCAGTGGCAT CACTGGAAAGT CTACAATATGCT	11	3.998352051	Lambda
PW4-F11	BASIC	VK4-1	JK2	15	CATTTTCCGTAC ACT CCGCTGGGCTC	9	6.739196777	Kappa
PW4-F12	BASIC	VL3-21	JL1	16	GACGCTGGGCC TGTAGGCGGCT GCC GCAGCATGGGA	12	0	Lambda
PW4-F2	BASIC	VL1-44	JL2	16	TGCCAGCCTGA GTGCTGTGGTC CAGCGGTATAAT	11	3.799865723	Lambda
PW4-F3	BASIC	VK3-15	JK3	10	AACTGGCCTCTC ACT ATGCAGGTTACA	9	8.747619629	Kappa
PW4-F4	BASIC	VK2-30	JK1	0	CACTGGCCTCG	9	9.519958496	Kappa

Supplemental Table 2 – LC repertoire 1

					AACG			
PW4-F5	BASIC	VK1-16	JK4	4	CAACAGTATAAT AGTTACCCGCTC ACT	9	5.523620605	Kappa
PW4-F6	Cloning	VL2-14	JL3	6	AACTCATATACA GGCAGCAGCAC TCTTTGGGTG	11	5.524353027	Lambda
PW4-F8	BASIC	VK3-15	JK5	26	CACCAGTATTAT GACTGGCCTCG GTCGCTCACC	11	6.742736816	Kappa
PW4-G1	BASIC	VK3-20	JK1	15	CAGCAGTATGG TGACTCACCGT GGACG	9	3.799865723	Kappa
PW4-G12	BASIC	VL1-40	JL1	8	CAGTCCTATGAC AACACCCTGAGT GACCATAACTAT GTC	13	4.196716309	Lambda
PW4-G2	BASIC	VL1-44	JL1	15	GCAGCATGGGA TGGCAGCCTGA ATGGTTA----	13	3.799865723	Lambda
PW4-H1	BASIC	VL2-14	JL2	7	TGTCTT AGCTCATATTCA AGTAACATTAAT CTCGTGATA	11	5.239807129	Lambda
PW4-H10	BASIC	VK3-20	JK1	11	CAGTGCTCTCG GACA	5	8.249694824	Kappa
PW4-H11	BASIC	VL2-8	JL1	6	AGCTCATATGCA AACAGCGACAC TTTTGTC	10	3.799255371	Lambda
PW4-H12	BASIC	VL2-14	JL2	11	AGCGCATATAGA AGCAGCAGCAC TCTTGTGGTA	11	8.46282959	Lambda
PW4-H2	BASIC	VK3-20	JK3	13	CAGCACTATGG GGGCTCACGGG AATTCAT	10	6.748718262	Kappa
PW4-H3	BASIC	VK1-17	JK2	5	CTACAGCATAAT AGTTACCCGTAC	9	6.739196777	Kappa

Supplemental Table 2 – LC repertoire 1

					ACT			
PW4-H4	BASIC	VL2-14	JL2	10	GCCTCATATAGA AGCAGCAGCAC TCTTGTTGTC CAGACCTATGAC	11	8.792541504	Lambda
PW4-H5	BASIC	VL1-40	JL3	7	AGCAGGCTGAG TGCTTGG----- GTG	13	5.835632324	Lambda
PW4-H8	BASIC	VL2-14	JL2	16	AGCTCATATAGA AGGAGCAGAAG TCTTGTGGTT	11	11.71136475	Lambda
PW4-H9	BASIC	VL2-14	JL2	6	ACCTCATATAGA ATTAGTAGCACT CTTGTGGTA	11	8.407897949	Lambda
PW5- C12	BASIC	VL2-14	JL1	6	GGAGGAGCTGG CCCTGAACGAG CTGGTGAC	10	4.669616699	Lambda
PW5-D1	BASIC	VL2-8	JL3	10	AGCTCATATGGA GGCAACCACGA TCTGATG	10	5.05670166	Lambda
PW5- D10	BASIC	VK3-20	JK1	0	CAGCAGTATGG TCGAACG	6	8.747619629	Kappa
PW5- D12	BASIC	VL1-44	JL3	3	GCAGCATGGGA TGACAGCCTGA ATGGTTGGGT----	13	3.563659668	Lambda
PW5-D2	BASIC	VK3-20	JK1	12	GTT CAGCACTATGTT GACTCACCGTG	9	5.076721191	Kappa
PW5-D4	BASIC	VL1-47	JL1	9	GGCG GCAGCATGGGA TGACATCCTGAG	11	4.196838379	Lambda
PW5-D5	BASIC	VL1-51	JL2	12	TGGTCATGTC CAAACATGGGAT GACAACCTGAG	11	3.563659668	Lambda
PW5-D6	BASIC	VK3-11	JK1	22	TGCTGTGATT CAGCAGCGAAG CAACTGGCCTCT	9	9.750061035	Kappa

Supplemental Table 2 – LC repertoire 1

					CACG			
PW5-D7	BASIC	VK4-1	JK4	2	CGCTTCTTGCCC			
					CTCTCTGCTTGG	11	9.750061035	Kappa
					GTCCCTGCT			
PW5-D8	BASIC	VL2-14	JL1	0	AGCTCATATACA			
					AGCAGCAGCAC	12	5.237854004	Lambda
					TTA----TGTCTT			
PW5-D9	BASIC	VK3-11	JK2	2	CAGCAGCGTAG			
					CAACTGGCCTC	10	8.747619629	Kappa
					CGTACACT			
PW5-E1	BASIC	VK1-33	JK4	4	CAACAGTATGAT			
					AATCTCCCCTTC	9	3.799865723	Kappa
					GGT			
PW5-E10	BASIC	VK1-33	JK1	5	CAACAGTATGAT			
					AATCTCTGGACG	8	3.799865723	Kappa
PW5-E11	BASIC	VK1-9	JK5	8	CAGCAGTCTAAT			
					GATTACCAGATC	9	3.799865723	Kappa
					ACC			
PW5-E2	BASIC	VK3-20	JK4	12	CAGCAGTATGCT			
					AACTCACCCCTTC	9	5.524353027	Kappa
					ACC			
PW5-E3	BASIC	VK3-20	JK2	10	CAACTTCTTCAG			
					ATCTGGGTGGTT	9	6.741149902	Kappa
					CAT			
PW5-E4	Cloning	VK3-15	JK5	5	CAACAGTATAAT			
					AACTGGCCTCC	10	5.524353027	Kappa
					GATCACC			
PW5-E5	Cloning	VK3-15	JK5	7	CAACAGTATCAT			
					AACTGGCCTCC	10	6.74017334	Kappa
					GATCACC			
					GGGCTCCAGTT			
PW5-E6	BASIC	VL1-47	JL3	19	TATCAAGATATC			
					CCCTTACACCC	13	9.99432373	Lambda
					GCATA			
PW5-F1	Cloning	VK3-11	JK4	1	CAGCAGCGTAG			
					CAACTGGCCTC	10	9.750061035	Kappa
					CGCTCACT			

Supplemental Table 2 – LC repertoire 1

PW5-F10	BASIC	VL3-10	JL2	10	TACTCAGCGGA CAGCACTGGTA ATCCCGTGGTA	11	3.799865723	Lambda
PW5-F11	BASIC	VK1-5	JK1	8	CAACAGTATGAT GCTTATCCGTG GACG	9	3.799865723	Kappa
PW5-F12	BASIC	VL3-1	JL2	14	CAGGCGTGGGA CAGCAGTACTGT GGT-----C	11	3.799865723	Lambda
PW5-F4	BASIC	VK3-20	JK3	10	ATATGTCAATTG GCCTTGGCTTTC TGC	9	5.511413574	Kappa
PW5-F5	BASIC	VL2-14	JL1	5	GCCTCATATACA AGCACCAGCAC TCGACTC	10	8.792541504	Lambda
PW5-F6	BASIC	VL3-21	JL3	10	CAGCTGTGGGA TAGCAGTAGTGA TCATGGGGGGG TT	12	4.196716309	Lambda
PW5-F8	BASIC	VL3-1	JL1	8	CAGGCGTGGGA CAGCAGCACTC GGGTC	9	5.836364746	Lambda
PW5-F9	BASIC	VL3-21	JL2	10	CAGGTGTGGCA TCGTTATAGTGA TCATATGATA	11	6.918395996	Lambda
PW5-G1	BASIC	VL3-21	JL2	9	CAGGTGTGGCA TCGTTATAGTGA TCATATGATA	11	6.918395996	Lambda
PW5-G11	BASIC	VL3-1	JL3	17	CAGGCGTGGGA CAGCAACTCTG GGGTT	9	3.799865723	Lambda
PW5-G12	BASIC	VK2-30	JK2	6	ATGCAGGGCAC ACACTGGCCGT ACACT	9	6.491027832	Kappa
PW5-G2	BASIC	VK1-12	JK2	7	CTCTTGTCCACG GTGAGCTTGCT GTAGAGGAAG	11	0	Kappa

Supplemental Table 2 – LC repertoire 1

PW5-G3	BASIC	VL1-40	JL3	5	CAGTCCTATGAC AGCAGCCTGAG TGGTTGGGT----- G	13	3.799865723	Lambda
PW5-G4	BASIC	VL3-1	JL2	10	CAGGCGTGGGA CACCAGCACTG TGA-----TA	11	3.799865723	Lambda
PW5-G5	BASIC	VK3-20	JK2	7	CAGCAATATGGT AACTCACCTCG GATGTACCCT AACTCCCGGGA	11	8.589660645	Kappa
PW5-H1	BASIC	VL3-19	JL2	12	CACCAATGGTG ATCATCTCATC AGCTCATATAGA	11	5.210876465	Lambda
PW5-H12	BASIC	VL2-14	JL2	9	ACCAGCAGCAC TCTTGTGGTA GCAGCCTGGGA	11	8.46282959	Lambda
PW5-H2	Cloning	VL1-44	JL3	8	TGACAGCCTGA GTGGTGTGGTG AGTTCATATAGA	11	3.563659668	Lambda
PW5-H3	BASIC	VL2-14	JL1	16	GATAGCAGCCC CCCCTTGTATAT C	12	5.55255127	Lambda
PW5-H4	BASIC	VL1-40	JL2	9	CAGTCGTATGAC AGCACTCTGGG TGGTCATGCGG TA	12	5.076721191	Lambda
PW5-H5	BASIC	VL1-40	JL3	28	CAGTCTTATGCC TACGATCAGAGT GTCTATTGGGTG GTGCTGTATATG	12	3.799865723	Lambda
PW5-H6	BASIC	VL8-61	JL3	12	GGTCGTGGCTC TTGGGTG CAACAGACTTCC	10	8.717590332	Lambda
PW5-H7	BASIC	VK1-39	JK4	7	ACTACCCTCATT ACT	9	5.524963379	Kappa
PW5-H8	BASIC	VL1-44	JL3	10	GCAACATGGGA	13	3.799865723	Lambda

Supplemental Table 2 – LC repertoire 1

					TGGCAGCCTGA ATGGTTGGG----			
					TGTT			
PW5-H9	BASIC	VL2-14	JL2	7	AGCTCATATAGA			
					AGCAGCAGCAC	11	8.46282959	Lambda
					TCTTGTGGTA			
PW6-D10	BASIC	VL1-40	JL1	3	CAGTCCTATGAC			
					AACAGCCTGAAT	12	3.799865723	Lambda
					GGTTTTTATGTC			
PW6-D12	BASIC	VK3-15	JK3	2	CAGCAGTATAAT			
					AACTGGCCCCG	10	8.747619629	Kappa
					ATTCACC			
PW6-D2	BASIC	VL6-57	JL3	22	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW6-D3	BASIC	VL6-57	JL3	20	CAGTCTTATGAT			
					ACCGGTCTTTG	9	3.799865723	Lambda
					GGTG			
PW6-D4	BASIC	VL6-57	JL3	22	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW6-D5	BASIC	VK4-1	JK2	9	CAGCAATATTAT			
					AGTAGTCCTCAC	9	6.739196777	Kappa
					ACT			
PW6-D6	BASIC	VL6-57	JL3	21	CAGTCTTATGAT			
					ACCGGCCTTTG	9	3.799865723	Lambda
					GGTG			
PW6-D7	BASIC	VK4-1	JK2	12	CAGCAATATTAT			
					AGTAGTCCTCAC	9	6.739196777	Kappa
					ACT			
PW6-D9	BASIC	VL3-9	JL3	11	CAGGTGCGCGA			
					CAGCGGCACTT	11	5.836364746	Lambda
					GGG----TGTT			
PW6-E1	Cloning	VL3-1	JL2	10	TGTCAGGCGTG			
					GGACACCAGCA	10	3.75	Lambda
					CTTATGTGGTAT			
					TC			

Supplemental Table 2 – LC repertoire 1

PW6-E10	BASIC	VL1-51	JL1	10	GGAGCGTGGGA TGGCAGCCTGA GTGCTTA----	13	3.799865723	Lambda
PW6-E12	BASIC	VL3-9	JL3	11	TGTCTT CAGGTGTGGGA CAGTAGCACTTG	11	3.799865723	Lambda
PW6-E4	BASIC	VL3-9	JL3	12	GGT----GTT CAGGTGTGGGA CAGCAGTACGT	9	3.799865723	Lambda
PW6-E5	BASIC	VL3-19	JL2	8	GGGTG AACTCCCGAGA CAGTAGTGGTAA	10	6.744567871	Lambda
PW6-E6	BASIC	VL2-14	JL1	6	CCATCCA AGCTCATATACA ACCAGCTACAC	10	5.239562988	Lambda
PW6-E8	BASIC	VL3-9	JL3	21	GAATGTC CAGGTGTGGGA CAGCACCAGTT	9	3.799865723	Lambda
PW6-E9	BASIC	VK1-5	JK2	11	GGGTG CAACACTATAAT ACTTATTTTAAT	9	6.739196777	Kappa
PW6-F1	BASIC	VK3-15	JK1	2	GTT CAGCAGTATAAT GACTGGCCTCC	10	3.799865723	Kappa
PW6-F10	BASIC	VK3-15	JK5	11	GACGACG CGCAGGTCGCC TGTTCTAGGAA	9	12.30108643	Kappa
PW6-F11	BASIC	VL1-51	JL2	1	TAAT GGAACATGGGA TAGCAGCCTGA	13	3.799865723	Lambda
PW6-F12	BASIC	VK3-15	JK1	12	GTGCTGTGGT--- ---A CAGCAGTATATT	9	6.000671387	Kappa
PW6-F5	BASIC	VK2-30	JK3	5	GAATGGCCTAA GACG ATGCAGGGTAC	11	9.519958496	Kappa
					GCACTGGCTCC			

Supplemental Table 2 – LC repertoire 1

PW6-F6	BASIC	VK1-33	JK4	5	GGGGATTCACT CAACAGTATCTC GCT	5	5.524353027	Kappa
PW6-F7	BASIC	VL1-40	JL3	9	CAGTCCTATGAC AGCAGCCTGAG TGGTTATTGGGT G	12	3.799865723	Lambda
PW6-F8	BASIC	VL3-9	JL3	12	CAGGTGTGGGA CAGCAGCACTT GGGT----GTT	11	3.799865723	Lambda
PW6-F9	BASIC	VK1-39	JK5	2	CAACAGAGTTAC GGTACCCCGAT CACC	9	5.524353027	Kappa
PW6-G1	BASIC	VK2-28	JK2	6	ATACAAGCTCTA CAAACCTCCTCCC ACT	9	5.524963379	Kappa
PW6-G10	BASIC	VK3-11	JK5	10	CAGCACCGTTG GAGCTGGCCCT CGGGCACC	10	9.756530762	Kappa
PW6-G11	BASIC	VK1-NL1	JK1	5	CAGCAGTATTAT AGTATCCCTCGA ACG	9	8.589660645	Kappa
PW6-G12	BASIC	VK3-11	JK4	11	CAGCAGCGTAC CAACTGGCCTC CTCTCACT	10	9.750061035	Kappa
PW6-G2	BASIC	VK1-33	JK2	14	CATCAGTGTGAA AATTTCCCTCGA ACT	9	6.74041748	Kappa
PW6-G4	BASIC	VK1-39	JK1	13	CCATTGAGAACC AGATTTGTGTAC CAT	9	10.84039307	Kappa
PW6-G6	BASIC	VL1-40	JL2	10	CAGTCCTATGAC AGCAGCCTGAA TGGTGT----	13	3.799865723	Lambda
PW6-G7	BASIC	VK1-17	JK1	6	GGTATT CTACAGCATAAT ACTTACCCGTG	9	6.74017334	Kappa

Supplemental Table 2 – LC repertoire 1

PW6-G9	BASIC	VK1-17	JK4	8	GACG CTCCAGCATAAT AATTACCCTCCC ACT	9	6.74017334	Kappa
PW6-H5	BASIC	VK1-5	JK2	5	CAACAGTATAAA AGTTATTCCTCG TACACT	10	8.430725098	Kappa
PW6-H7	BASIC	VL2-14	JL3	9	TGCTCATATAGA AGCAGCAGCAC TCTTGTGGTG	11	8.221984863	Lambda
PW6-H8	BASIC	VL2-14	JL2	12	AGCGCATATAGA AGCAGCAGCAC TCTTGTGGTA	11	8.46282959	Lambda