

Supplemental Table I. Oligonucleotide sequences (5' to 3')

1 st 5'J558	AGCCTGACATCTGAGGAC
VDJ4-StuI Fwd	CAGCTAAGAAAGGCCTCTCCAG
VDJ4-StuI Rev	CTGGAGAGGCCTTCTTAGCTG
VDJ4-BbvCI Fwd	GTCTCCTCAGCTAAGAACGGC
VDJ4-BbvCI Rev	GCCATTCTTAGCTGAGGAGAC
Extension J _H 4 1	GAGCCTCACTCCCATTCCCTCGG
J _H 4 2-1	TCCATACACATACTTCTGTGTTCT
Nested J _H 4 2-2	TAGATGCCTTCTCCCTTGACTCA
Probe J _H 4 3	GTTGGAAGGAGCTGTCTTAGTG
Top linker	ATGCACTACATACAGTCATCCGGAGATCTGAATT
Bottom linker	GAATTCAAGATCTCC
LL4 linker	ATGCACTACATACAGTCATCCGGAG
Nested LL2 linker	CAGTCATCCGGAGATCTGAATT
<i>Gapdh</i> forward	TCCACCACCGTGTGCTGTAG
<i>Gapdh</i> reverse	GACCACAGTCCATGCCATCACT

Colors correspond to arrows in Fig. 1.

Supplemental Table II. Mutation events in the J_H4 intron

	Events	%
Total mutations	2628	
Base substitutions	2593	98.7
Insertions (1 bp)	9	0.3
Deletions		
Small (1-2 bp)	19	0.7
Large (9-164 bp)	7	0.3

Data from Maul, R.W. et al. 2016. *J. Exp. Med.* 213: 1675-1683.