

Supplementary Table SII RT-PCR primers

Gene name	Primer sequence 5'–3'	Product size (base pairs)	located on different exons
IGHG1	External ACGGCCGTGGAGGTGCATAATG (sense) CGGGAGGCCGTGGTCTTGTAGTT (antisense) Internal GACTGGCTGAATGGCAAGGAG (sense) GGCGATGTCGCTGGGATAGAA (antisense)	201	Yes
IGHG1 (used for cell lines)	External GTGTACACCCTGCCCCATCC (sense) GAGGCTCTTCTGCGTGTAGTG (antisense) Internal CCGGGATGAGCTGACCAAGAACC (sense) CACGGAGCATGAGAAGACG (antisense)	282	Yes
VDJ _H	External V3, GAGGTGCAGCTCGAGCAGTCAGG (sense) V4f, CAGGTGCAGCTGCTCGAGTCGGG (sense) V6, CAGGTACAGCTCGAGCAGTCAGG (sense) CHI, ACACCGTCACCGGTTCCGG (antisense) Internal The same primers as external (sense) LJH, TGAGGAGACGGTGACC (antisense)	343–389	Yes
Igκ	TGAGCAAAGCAGACTACGAGA (sense) GGGGTGAGGTGAAAGATGAG (antisense)	231	No
Igλ	GAGCCTGACGCCTGAG (sense) ATTGAGGGTTTATTGAGTGCAG (antisense)	223	No
RAG1	External TGGATCTTTACCTGAAGATG (sense) CTTGGCTTTCCAGAGAGTCC (antisense) Internal CACAGCGTTTTGCTGAGCTC (sense) AGCTTGCCTGAGGGTTCATG (antisense)	327	No
RAG2	External TGGAAGCAACATGGGAAATG (sense) CATCATCTTCATTATAGGTGTC (antisense) Internal TTCTTGGCATACCAGGAGAC (sense) CTATTTGCTTCTGCACTG (antisense)	193	No
CD19	TACTATGGCACTGGCTGCTG (sense) CACGTTCCCGTACTGGTTCT (antisense)	218	Yes
I8s	AAACGGCTACCACATCCAAG (sense) CCTCCAATGGATCCTCGTTA (antisense)	155	No
CD34	CACCCTGTGTCTCAACATGG (sense) GGCTTCAAGTTGTCTCTGG (antisense)	191	Yes
CD38	TTGGGAACTCAGACCGTACC (sense) GTTGCTGCAGTCCTTTCTCC (antisense)	213	Yes
CD68	ACTGAACCCCAACAAAACCA (sense) TTGTACTCCACCGCCATGTA (antisense)	153	Yes
CK7	CAGGATGTGGTGGAGGACTT (sense) TGAGGGTCCTGAGGAAGTTG (antisense)	178	Yes
Actin	TAAAGACCTCTATGCCAACACAG (sense) CACGATGGAGGGGCCGGACTCATC (antisense)	218	Yes