

Supplemental Table 1. Repertoire of antibodies from CD21-/lo B cells of Sjögren's syndrome patient SS03

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vk	Jk	CDR3 (aa)	Length	Mut.
CD21- SS03 03	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 05	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 07	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 08	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 11	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 13	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 14	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 15	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 16	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 18	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 20	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 21	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 22	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 23	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
CD21- SS03 24	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4

RF, reading frame; #, antibody failed to be expressed

-, non-reactive; +, reactive; +2, highly reactive

c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining;

N, nuclear staining; F, cytoplasmic fibers

Supplemental Table 2. Repertoire of antibodies from CD21-/lo B cells of Sjögren's syndrome patient SS204

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vκ	Jκ	CDR3 (aa)	Length	Mut.
CD21- SS204 01	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 02	1-26	4-23	2	6	EGLSDMGLRGVWFDYYGMDV	20	2					
CD21- SS204 03	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 04	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 05	1-69	4-17	2	4	EGYGDG NRPFDY	12	9	3-20	2	QQYGSSPYT	9	1
CD21- SS204 06	1-69	4-17	2	4	EGYGDG NRPFDY	12	9	3-20	2	QQYGSSPYT	9	1
CD21- SS204 07	1-69	4-17	2	4	EGYGDG NRPFDY	12	9	3-20	2	QQYGSSPYT	9	1
CD21- SS204 08	1-69	4-17	2	4	EGYGDG NRPFDY	12	9	3-20	2	QQYGSSPYT	9	2
CD21- SS204 11	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 12	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 13	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 14	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 16	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 17	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 18	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 20	1-69	4-17	2	4	EGYGDG NRPFDY	12	10	3-20	2	QQYGSSPYT	9	5
CD21- SS204 21	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 22	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 23	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 25	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 26	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 27	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 28	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 30	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 31	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 32	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 33	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 34	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 35	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 36	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 37	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 38	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 39	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 40	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 41	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 42	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 43	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 44	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 47	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					
CD21- SS204 48	1-69	4-17	2	4	EGYGDG NRPFDY	12	9					

RF, reading frame; #, antibody failed to be expressed

-, non-reactive; +, reactive; +2, highly reactive

c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining;

N, nuclear staining; F, cytoplasmic fibers

Supplemental Table 3. Repertoire of antibodies from CD21-/lo B cells of Sjögren's syndrome patient SS59

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vκ	Jκ	CDR3 (aa)	Length	Mut.
CD21- SS59 01	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 07	4-39	3-22	2	5	QQYYDSSGYYNWFDP	17	0	3-11	2	QQRSNWYT	8	0
CD21- SS59 09	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 10	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 12	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 14	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 15	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 16	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 19	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 20	3-53	5-12	1	4	GWLRHKHFDY	10	15	3-15	1	QQYNNWWT	8	0
CD21- SS59 22	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 23	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 25	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 26	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 30	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	8	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 31	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	6	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 32	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 34	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 36	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 37	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 38	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 39	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 40	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 48	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 49	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 54	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 56	3-30	6-13	3	6	DTLVIAAAGKGGYYGMDV	18	1	1-5	1	QHSGA	5	0
CD21- SS59 61	1-69	7-27	3	2	DSGEGWYFDL	10	11	3-20	4	QQYGNSPLT	9	3
CD21- SS59 62	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 63	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 64	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 65	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 72	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 73	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 82	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 83	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 85	3-30	5-15	3	4	ERDVVATNYYFDS	13	27	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 86	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 89	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 92	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 93	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 95	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 150	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 172	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 174	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 179	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 185	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 186	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 188	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 190	3-53	3-3	2	6	VRDFWSDYYRNPPRSFKYGMDV	22	7	3-20	5	QQYGSSPFSIT	11	8
CD21- SS59 45	4-34	3-16	/	4	GGVSNQSKYRNKLNKQRSFDY	23	1					
CD21- SS59 67	4-34	1-26	2	3	GGGSYYYAFDI	10	0					
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vλ	Jλ	CDR3 (aa)	Length	Mut.
CD21- SS59 07					see kappa			3-1	2	QAWDSSTVV	9	0
CD21- SS59 17	4-34	2-2	2	5	GSCNSTSCRYNWFDP	15	7	1-44	1	AAWDDSLNGYV	13	2

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c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining;

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Supplemental Table 4. Repertoire of antibodies from mature naive B cells of Sjögren's syndrome patient SS03

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	V _k	J _k	CDR3 (aa)	Length	Mut.
mnSS03 03	1-8	3-10	3	4	SMVRGVIPSNY	11	0	4-1	2	QQYYSTPYS	9	0
mnSS03 04	3-21	3-22	2	6	DLSYYDSSGYYYYYGMDV	19	1	1-39	1	QQSYSTPPWT	10	0
mnSS03 05	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 06#	3-7	4-17	2	5	HGFDGDYVPGYDP	14	0	4-1	2	QQYYSTPYS	9	4
mnSS03 07	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 08	4-34	6-13	1	5	IRGRQLVRGAPS	12	0	3-20	1	QQYGSSPQT	9	0
mnSS03 09	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 11	3-7	4-17	2	5	HGFDGDYVPGYDP	14	1	2-30	2	MQGTHWPLYS	10	0
mnSS03 12	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 13	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 14	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 15	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 16	4-59	/	/	3	CSJETAPLDAFDI	13	8	4-1	2	QQYYSTPYS	9	2
mnSS03 17	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 18	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 20	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 21	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 23	4-34	2-8	2	6	YCTNPSRVVCCYYGMDV	17	0	1-16	1	QQYNSYPRT	9	0
mnSS03 24	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 25	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 26	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 27	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 28	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 29#	3-21	2-2	3	5	GIGDIVVPAIAGANWFDP	19	0	3-11	5	QQRSNWPPIT	10	0
mnSS03 30	3-30	2-15	3	6	DILRLVVVATHGYYYYGMDV	21	3	3-20	2	QQYGSSPYS	9	1
mnSS03 31	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 34	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 35	3-48	2-2	2	6	FLGYCSSTSCYTGRPDRGGYYYYGMDV	28	0	3-15	2	QQYNNWPPYS	10	0
mnSS03 36	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 38	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 39#	4-39	2-15	2	6	YCSGGSCYSVHGMDV	15	0	3-11	5	QQRSNWPPIT	10	0
mnSS03 41	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 42	3-30	5-5	1	1	DAGIQLLAIEYFQH	13	0	3-11	3	QQRSNWPLT	9	0
mnSS03 43	1-2	5-5	2	4	GRGYSYGPVDY	11	0	3-20	4	QQYGSSPPLT	10	0
mnSS03 44	4-39	3-22	2	3	QGKAGGYDSSGYFFKDAFDI	22	0	1-5	2	QQYNSYSYS	9	1
mnSS03 45	4-59	/	/	3	CSIGTAPLDAIDI	13	21	4-1	2	QQYYSTPYS	9	4
mnSS03 46	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 48	4-59	/	/	3	CSIGTAPLDAIDI	13	20	4-1	2	QQYYSTPYS	9	4
mnSS03 22	3-30	3-3	2	4	DGGDFWWSGFLFEY	14	8					
mnSS03 33	4-34	3-22	2	4	DDSSGYPPDY	10	1					
mnSS03 47	4-39	3-9	2	4	PILTYGYYFDY	12	0					
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	V _λ	J _λ	CDR3 (aa)	Length	Mut.
mnSS03 10	3-23	2-2	2	5	SIRSTSS	7	2	2-14	2	SSYTSSSFVV	10	0
mnSS03 32	3-15	5-12	1	6	DRGKGWLRLLGYGMDV	16	1	1-44	3	AAWDDSLNGPV	11	0
mnSS03 42					see kappa			2-14	3	SSYTGSSRV	9	3

RF, reading frame; #, antibody failed to be expressed

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c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining; N, nuclear staining; F, cytoplasmic fibers

Supplemental Table 5. Repertoire of antibodies from mature naive B cells of Sjögren's syndrome patient SS204

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vk	Jk	CDR3 (aa)	Length	Mut.
mnSS204 50	1-69	4-17	2	4	EGYGDGNRPFDY	12	13	3-20	2	QQYGSSPYT	9	1
mnSS204 51	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 54	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 55	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 56	1-69	4-17	2	4	EGYGDGNRPFDY	12	11					
mnSS204 57	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 58	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 59	3-11	2-2	2	5	DALYCSSTSCYSGFDP	16	0					
mnSS204 60	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 62	3-23	/	/	4	DRGRSPYYFDY	11	3					
mnSS204 63	1-8	/	/	5	GSQALDT	7	20					
mnSS204 67	3-48	5-5		4	LPLRYSYSPGGDY	13	0					
mnSS204 68	3-30	6-6	2	4	EYSSSSGGETRDY	13	1					
mnSS204 69	4-59	6-6	3	4	ARHSIAARVFDY	12	0					
mnSS204 80	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 85	3-11	/	/	4	GQAKDY	6	5					
mnSS204 86	3-49	6-13		4	SSWYGGDYFDY	11	0					
mnSS204 89	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 90	3-53	4-4		4	VIIGLQYIDY	10	0					
mnSS204 91	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 93	1-69	4-17	2	4	EGYGDGNRPFDY	12	9					
mnSS204 94	3-73	/	/	6	QQGERVGTYYYYYMDA	17	11					

RF, reading frame; #, antibody failed to be expressed

-, non-reactive; +, reactive; +2, highly reactive

c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining;

N, nuclear staining; F, cytoplasmic fibers

Supplemental Table 6. Repertoire of antibodies from new emigrant B cells of Sjögren's syndrome patient SS03

Ig	HEAVY						LIGHT			
	VH	D	RF	JH	CDR3 (aa)	Length	Vκ	Jκ	CDR3 (aa)	Length
neSS03 04	3-74	/	/	6	DLVPQDYGGMDV	13	1-8	4	QQYYSYPLT	8
neSS03 05	3-21	3-3	3	4	DWPIFGVAAGFDY	13	3-15	1	QQYNNWPKT	9
neSS03 10	4-34	1-1	2	4	GWDYNWND	8	4-1	4	QQYYSTPLT	9
neSS03 11	4-59	3-16	2	4	TINYVWGSYRH	11	1-5	2	QQYNSYSDT	9
neSS03 18	3-48	5-5	2	6	DGVYSYGYDGPYYYYGMDV	19	4-1	2	QQYYSTPYT	9
neSS03 19	3-23	4-17	3	6	ATTVTAPEYYYYGMDV	16	3-15	4	QQYNNWPPLT	10
neSS03 24	4-39	6-13	3	6	RGIAAAGNGNYGMDV	15	1-5	4	QQYNSYLLT	9
neSS03 26	3-33	3-22	2	4	ELTYYYDSSGQTPPGY	16	1-5	1	QQYNSYFWT	9
neSS03 28	3-23	5-24	2	4	GRTKNGYTWELLYYFDY	17	1-33	3	QQYDNLPPIT	10
neSS03 29	4-59	5-5	2	2	GGRFGYSYGSNWYFDL	16	3-15	2	QQYNNWPYS	9
neSS03 31	3-30-3	6-13	3	4	AAGSFFDY	8	3-15	1	QQYNNWWT	8
neSS03 38	4-34	/	/	6	LPYYYYYGMV	11	1-16	4	QQYNSYPLT	9
neSS03 45	3-48	2-2	3	6	DRSATNRNVPAAMLYYYYYGMDV	23	2-28	1	MQALQTPRT	9
	VH	D	RF	JH	CDR3 (aa)	Length	Vλ	Jλ	CDR3 (aa)	Length
neSS03 01	4-31	3-10	1	3	SALWFGELLGTFDI	14	2-14	2	SSYTSSSTL	9
neSS03 02	3-33	4-17	2	3	DHYDYFGAFDI	11	2-11	2	CSYAGSYTRV	10
neSS03 03	4-34	3-10	3	5	GRGTMVRGGNWFDP	14	3-1	2	QAWDSSTGVV	10
neSS03 04					see kappa		2-14	2	SSYTSSSTLVV	11
neSS03 06	3-9	6-13	2	4	AYSSTTADPSDY	12	2-14	2	SSYTSSSTV	9
neSS03 08	1-8	3-22	2	5	GSDSYDSSGYYYIYNWFDP	20	1-40	1	QSYDSSLSGV	10
neSS03 09	3-23	5-24	1	4	DDRRWLQSYFDY	12	2-8	2	SSYAGSNNLV	10
neSS03 12	3-9	5-12	2	6	DRGGYDNYGGMDV	15	2-23	2	CSYAGSSVVV	10
neSS03 13	3-21	1-26	3	4	DQGVGALDY	9	2-11	2	CSYAGSKE	8
neSS03 17	3-48	/	/	6	SLYTYGTYGGMDV	15	3-1	2	QAWDSSTVV	9
neSS03 21	3-15	3-22	2	4	DTNYYDSSGYYDFDY	15	3-1	2	QAWDSSTARV	10
neSS03 26					see kappa		2-14	3	SSYTSSSRV	9
neSS03 30	4-34	6-19	2	4	TEPYSSGWYLRVGGYYFDY	19	2-11	3	CSYAGSYTWV	10
neSS03 36	4-59	3-10	3	6	TGMVRGVHIDSYYYGMDV	18	3-1	3	QAWDSSTAV	9

RF, reading frame; #, antibody failed to be expressed, ND, not done

-, non-reactive; +, reactive; +2, highly reactive

c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining; N, nuclear staining; F, cytoplasmic fibers

Supplemental Table 7. Repertoire of antibodies from mature naive B cells of Sjögren's syndrome patient SS59

Ig	HEAVY							LIGHT				
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.	Vκ	Jκ	CDR3 (aa)	Length	Mut.
mnSS59 18	3-21	2-21	3	4	VEGLGVVALLY	11	0	1-9	1	QQLNSYPPWT	10	2
mnSS59 17	3-11	6-19	2	4	DTGYSTTVDY	10	0					
mnSS59 19	1-8	5-12	1	6	GLWLREPDVPEYYYYYGGMDV	21	0					
mnSS59 24	3-20	/	/	6	WALSGYYYYYGGMDV	14	0					
mnSS59 34	1-69	3-10	3	4	DRVVRGVPQRYFFDY	16	0					
mnSS59 35	3-21	3-10	1	6	DGDLLWFGELLPKEGGYGGMDV	22	0					
mnSS59 37	3-13	7-27	3	4	GSLKTGDIDY	10	0					
mnSS59 39	4-59	2-2	2	6	ADSYCSSTSCKRRGYSENRNQYYYYYGGMDV	32	0					
	VH	D	RF	JH	CDR3 (aa)	Length	Mut.					
mnSS59 02	3-23	1-26	3	4	ASRRIVGATSIFDY	14	0	1-47	1	AAWDDSLSGYV	11	0
mnSS59 09	3-48	3-3	2	4	DLGDYDFWSGYGAAAGNFDY	21	0	3-21	2	QVWDSSSDHPV	11	0
mnSS59 13	3-21	3-9	1	4	DTESNPVLRVFDWLPYYFDY	21	0	3-21	2	QVWDSSSDHPV	11	0
mnSS59 16	3-23	3-10	2	6	DWESGYYGSGSYLLNYYYYGGMDV	23	0	1-44	2	AAWDDSLNGPV	11	0
mnSS59 18					see kappa			2-14	3	SSYTSSSTWV	10	3
mnSS59 22	3-33	/	/	6	DGVYYYYGGMDV	11	0	2-14	2	SSYTSSSSV	10	1
mnSS59 28	5-51	/	/	4	HSSLVDSPDY	10	0	2-14	2	SSYTSSSTRV	10	2
mnSS59 44	1-2	6-19	3	4	EGLVAGTQEYYFDY	14	0	1-44	1	AAWDDSLNGHYV	12	0

RF, reading frame; #, antibody failed to be expressed

-, non-reactive; +, reactive; +2, highly reactive

c, diffuse cytoplasmic staining; A, actin staining; G, Golgi staining; M, mitochondria staining; MS, mitotic spindle staining;

N, nuclear staining; F, cytoplasmic fibers