



Supplementary Data To:

# Decreased BAFF Receptor Expression and Unaltered B Cell Receptor Signaling in Circulating B Cells from Primary Sjögren's Syndrome Patients at Diagnosis

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**Table S1.** List of antibodies and reagents used for flow cytometry staining.

Marker/Reagent	Label	Clone	Company
Human TruStain FcX	-	-	Biologend
Fixable Viability Dye	eFluor506	-	Invitrogen
BAFFR	PerCP-Cy5.5	11C1	Biologend
CD19	PerCP-Cy5.5	SJ25C1	BD Biosciences
CD19	FITC	HIB19	BD Biosciences
CD3	AF700	UCHT1	Invitrogen
CD3	FITC	UCHT1	Invitrogen
CD3	APC	SK7	BD Biosciences
CD3	PE	SK7	BD Biosciences
BTK	PE	53/BTK	BD phosflow
BTK	PE	REA367	Miltenyi
CD86	BV650	FUN-1	BD Biosciences
IgM	Biotin	G20-127	BD Biosciences
IgD	APC-H7	IA6-2	BD Biosciences
IgD	PE-Cy7	IA6-2	BD Biosciences
IgD	BV605	IA6-2	BD Biosciences
CD38	APC	HIT2	BD Biosciences
CD38	BV785	HIT2	Biologend
CD27	BV421	M-T271	BD Biosciences
IgG	BV786	G-18-145	BD Biosciences
HLA-DR	BV711	G46-6	BD Biosciences
pSYK Y348	PE	I120-722	BD phosflow
pBTK Y223	AF647	N35-86	BD phosflow
pBTK Y551	PE	24a/BTK (Y551)	BD phosflow
pPLCγ2 Y759	AF647	K86-689.37	BD phosflow
Streptavidin	APC-eFluor780	-	Invitrogen
Streptavidin	BV711	-	BD Biosciences

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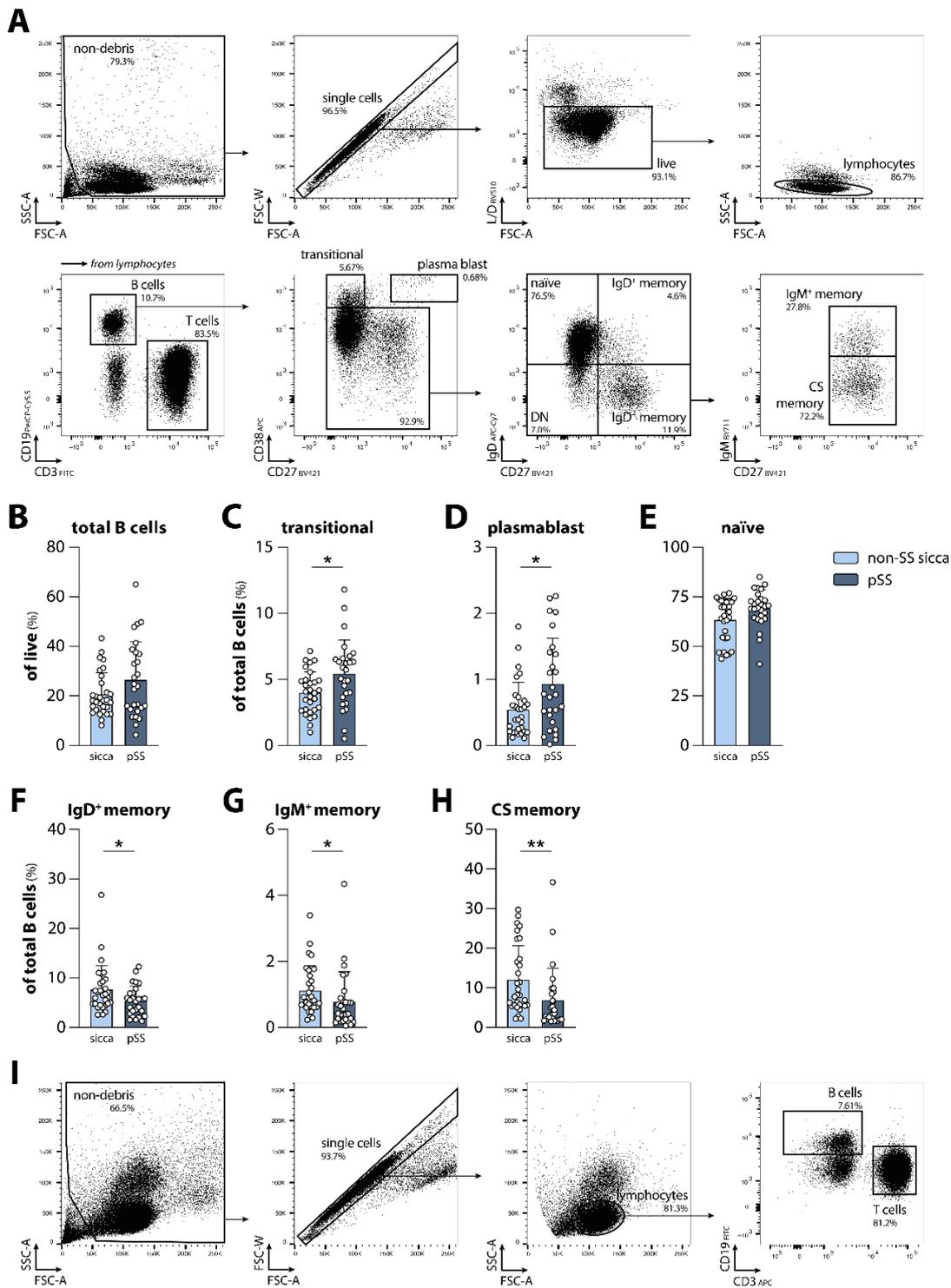
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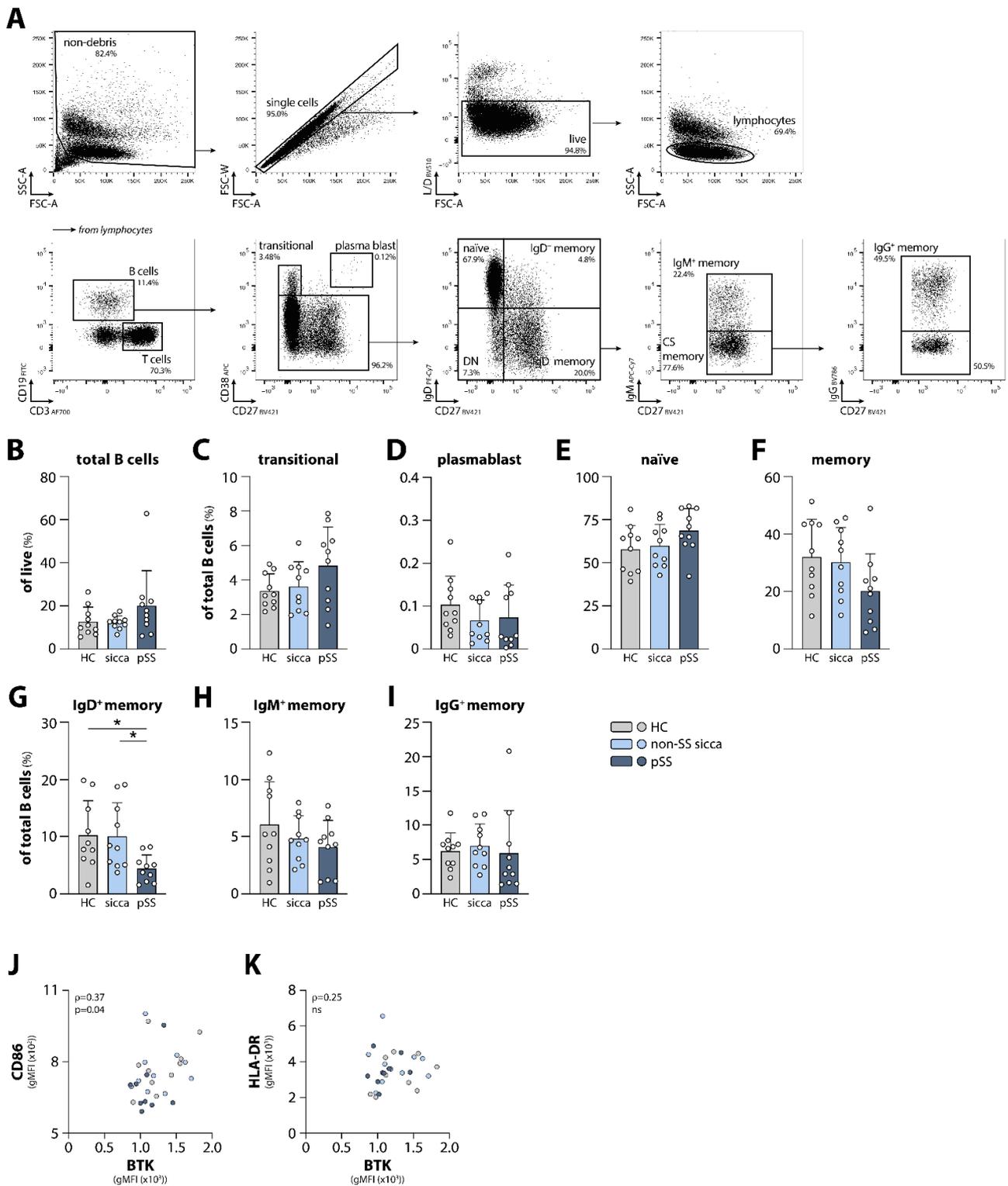
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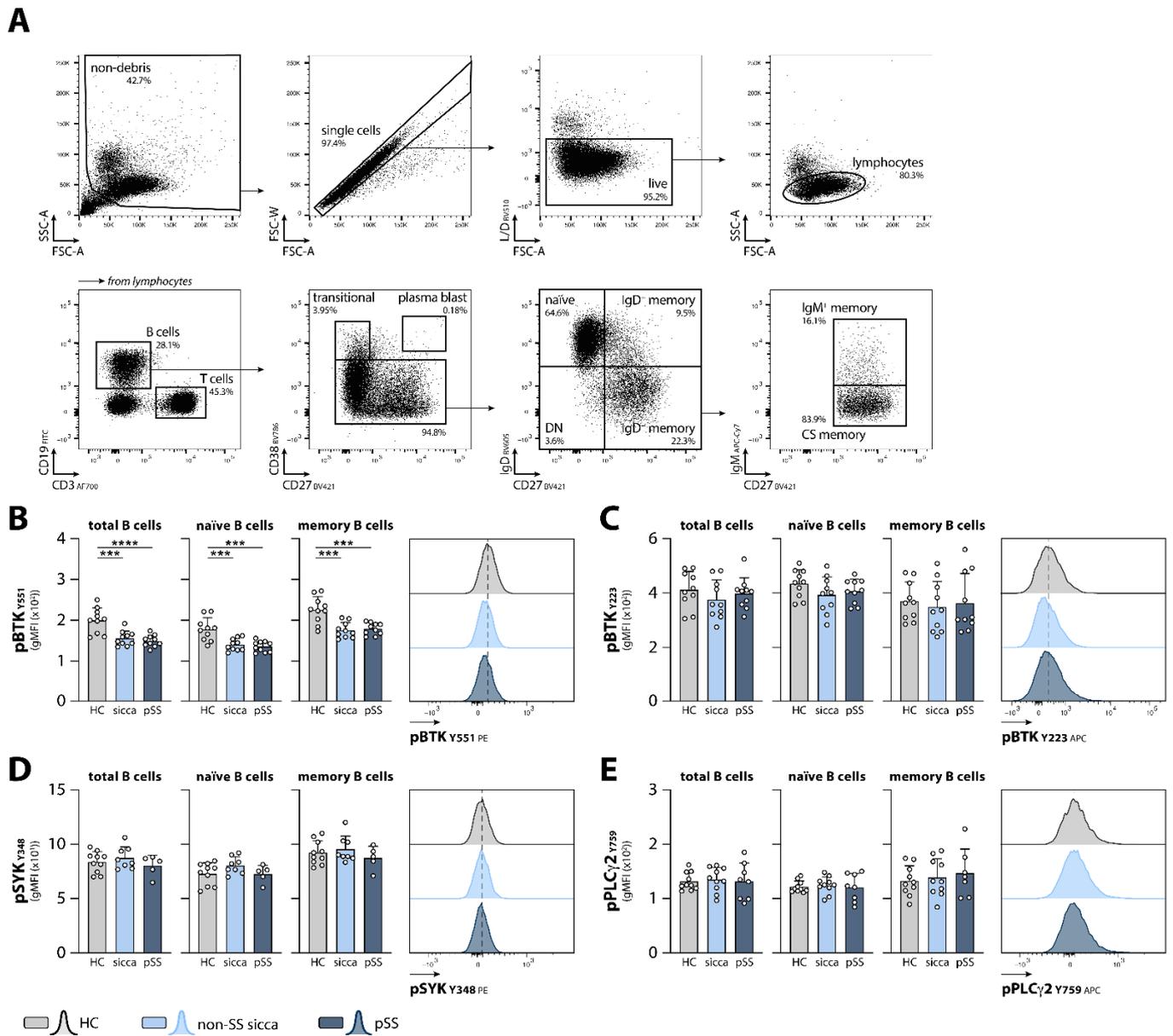
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**Figure S1.** B cell populations in non-SS sicca and pSS patients from patient group 1. **(A)** Representative gating strategy of the intra- and extracellular marker staining. **(B–H)** B cell subset distribution in non-SS sicca and pSS patients, indicating **(B)** the percentage of total B cells from single, live, lymphocytes and the percentage of **(C)** transitional B cells, **(D)** plasmablasts, **(E)** naïve B cells, **(F)** IgD<sup>+</sup> memory B cells, **(G)** IgM<sup>+</sup> memory B cells, and **(H)** class-switched (CS) memory B cells. **(I)** Representative gating strategy of the phosphoflow cytometry staining to detect total B cells. Bars indicate mean + SD. \*\*  $p < 0.01$ , \*  $p < 0.05$  by unpaired t-test or Mann-Whitney U test.



**Figure S2.** B cell population analysis of HCs, non-SS sicca patients, and pSS patients from patient group 2. (A) Representative gating strategy of the intra- and extracellular marker staining. (B–I) B cell subset distribution in HC, non-SS sicca patients, and pSS patients, with (B) the percentage of total B cells from single, live, lymphocytes and the percentage of (C) transitional B cells, (D) plasmablasts, (E) naïve B cells, (F) total memory B cells, (G) IgD<sup>+</sup> memory B cells, (H) IgM<sup>+</sup> memory B cells, and (I) IgG<sup>+</sup> memory B cells. Bars indicate mean + SD. (J, K) Spearman’s rank correlation analysis between intracellular BTK expression in total B cells and (J) surface CD86 and (K) surface HLA-DR expression. \*  $p < 0.05$  by Kruskal-Wallis test with Dunn’s correction for multiple comparisons.



**Figure S3.** Basal BCR signaling activity in HCs, non-SS sicca patients, and pSS patients. **(A)** Representative gating strategy of the intra- and extracellular marker staining. **(B–E)** Basal phosphorylation levels of **(B)** BTK (Y551), **(C)** BTK (Y223), **(D)** SYK (Y348), and **(E)** PLCγ2 (Y759) in circulating total, naïve, and memory B cells in HCs, non-SS sicca patients, and pSS patients. Representative histograms are shown for total B cells. Bars indicate mean + SD. \*\*\*\*  $p < 0.0001$ , \*\*\*  $p < 0.001$  by Kruskal-Wallis test with Dunn’s correction for multiple comparisons.