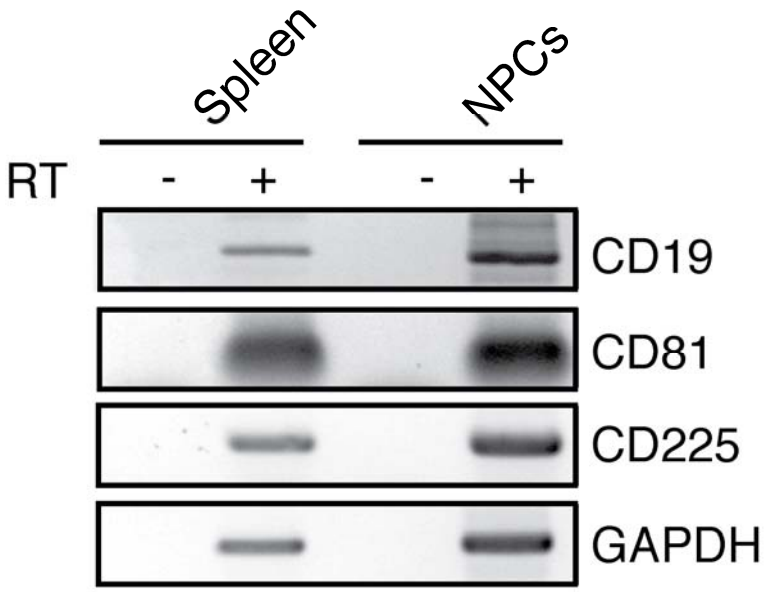
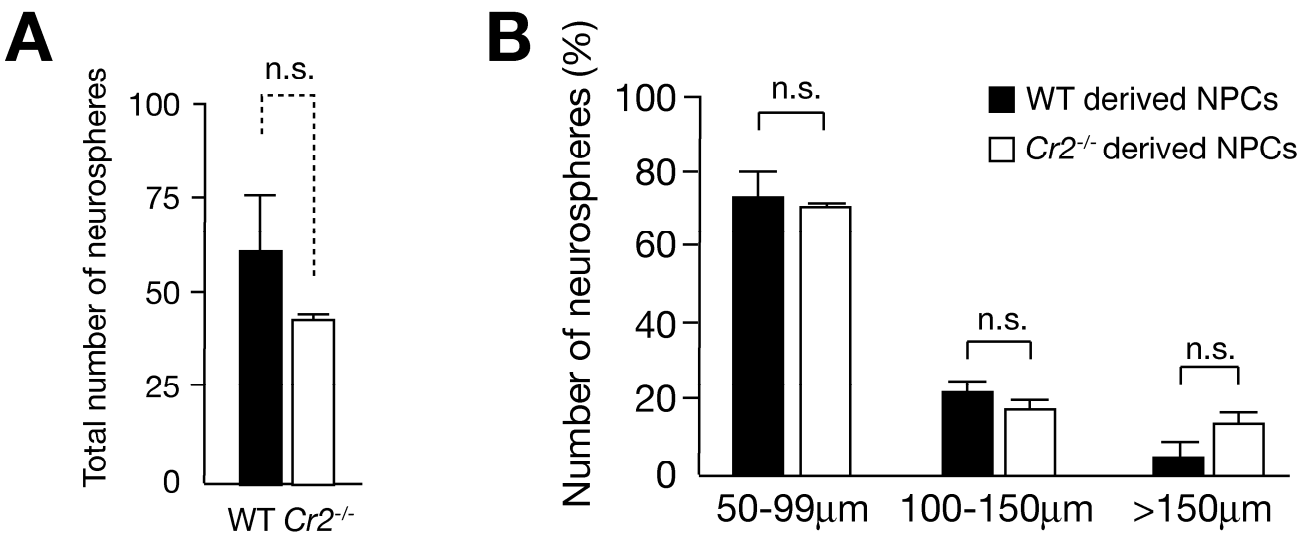


Supplementary Figure 1. NPCs express molecular components of the B cell receptor complex: CD19, CD81 and CD225.

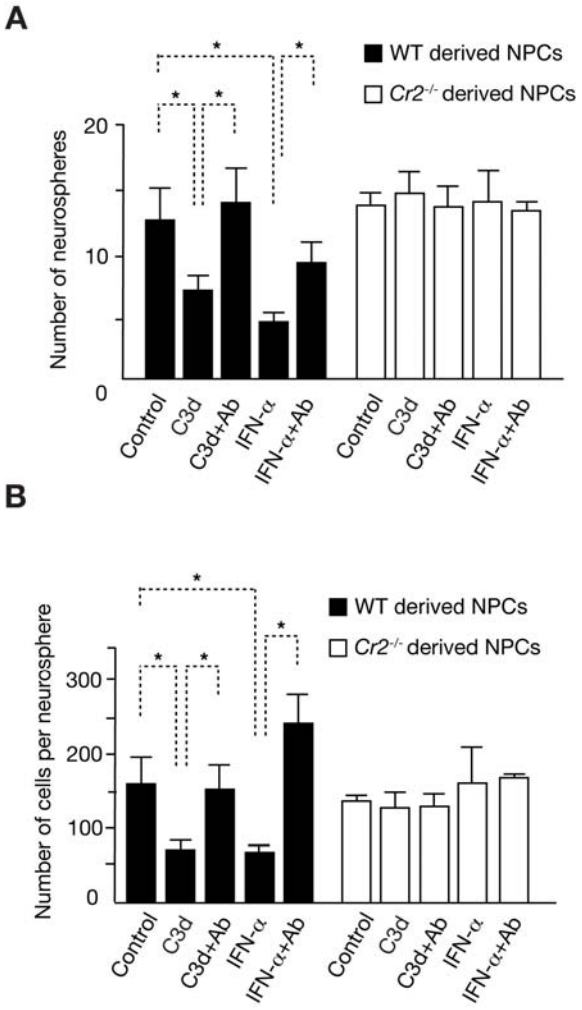
(A) Specific primer sets for CD19, CD81, CD225, or GAPDH as a control, were used to amplify transcripts using RT-PCR. cDNA was synthesized with oligo-dT primers in the presence (RT+) or absence (RT–) of reverse transcriptase from total RNA extracted from primary mouse NPCs or from wildtype spleen as a positive control. NPCs expressed all three molecules known to be components of the B cell receptor complex.

Supplementary Video 1. Cr2-cre controlled EGFP reporter gene is expressed in neural progenitor cells of the SGZ. A stack of deconvoluted confocal images was reconstructed and presented as a rotating image in a movie. Sox2 (red), EGFP (green), Tomato (blue) from a Cr2-cre;mT/mG reporter mouse.



Supplementary Figure 2. Neurosphere formation is not significantly changed in NPCs derived from *Cr2*$^{-/-}$ compared with wildtype littermate control mice.

Primary mouse neurospheres were isolated from newly born *Cr2*$^{-/-}$ (open bars) and wildtype (WT; closed bars) controls and established cultures were seeded into 24-well plates. Total neurosphere number per field (A) and neurosphere size (B) in mouse NPC culture evaluated at passage 5. Bars represent mean + SEM from triplicate cultures. No significant differences were found by ANOVA.



Supplementary Figure 3. CD21 ligands reduce the number of neurospheres in primary mouse NPCs. Primary mouse NPCs isolated from forebrains of *Cr2*$^{-/-}$ (open bars) and wildtype (WT; closed bars) mice and treated with purified human C3d (10 μg/ml) or IFN-α (1000U/ml) in the presence or absence of anti-CD21/CD35 antibody 7G6 (Ab), which blocks ligand binding, or with vehicle as a control for 48 h. (A) Average number of neurospheres > 50 μm per field (average of 3 fields at 20 x magnification) from triplicate cultures. (B) Average number of cells per neurosphere calculated as the ratio of total cell number/neurosphere number. Bars represent mean + SEM from triplicate cultures from one of 2 representative experiments. *, $P < 0.05$ by one-way ANOVA and Scheffe's posthoc test. Note the inhibitory effect of CD21 ligands in WT but not in *Cr2*$^{-/-}$ NPCs.

Supplementary Table 1: Primers used for RT-PCR and q-PCR

For RT-PCR

	Name	Sequence (5`- 3`)	Predicted size (bp)	NCBI Gene ID
Cr2	mCr2-F	GTTCCAGTTAAGTGAGAGTGC	464	12902
	mCr2-R	CAGGATCCCAGGTATTATTGGC		
GAPDH1	GAPDH-F	ACCACAGTCCATGCCATCAC	452	14433
	GAPDH-R	TCCACCACCCTGTTGCTGTA		
EGFP	EGFP-F	AGGACGACGGCAACTACAAG	309	N/A
	EGFP-R	TGGGTGCTCAGGTAGTGGTT		
Beta Actin	Beta-Actin-F	GGGTCAGAAGGACTCCTATG	90	11461
	beta-Actin-R	GTAACAATGCCATGTTCAAT		
CD19	mCD19-F	ATGCTCAGCGTTGGGCTGCTGGC	543	12478
	mCD19-R	CTAGGTCGTCAGACTTATCC		
CD81	mCD81-F	AGCCTGCTGTACCTGGAACTGGG	636	12520
	mCD81-R	CTGTGAGGTGGCTGCAGGCATCTGG		
CD225	mCD225-F	GCCTTCATCACCGCTGCCAGTGG	316	66141
	mCD225-R	CCAAGGTGCTGATGTTCAGGCAC		

For qPCR

	Name	Sequence (5`- 3`)	Predicted size (bp)	NCBI Gene ID
Cr2	mCr2-q-F	ATCAGAAAGGCTTCTTTAGGGTG	143	12902
	mCr2-q-R	CGTGCCTCTCCAGCCATAAG		
GAPDH1	mGAPDH-q-F	TGGCAAAGTGGAGATTGTTGCC	156	14433
	mGAPDH-q-R	AAGATGGTGATGGGCTTCCCG		

Supplementary Table 2: antibodies tested in our study

Name of antibody	Monoclonal /polyclonal	Antibody species x antigen species	Source	Western blotting of spleen	IHC on spleen	IHC on Brain
171	MoAb	Mou x Hum	Mike Holers	+	N/A	-
629	MoAb	Mou x Hum	Mike Holers	+	N/A	-
1048	MoAb	Mou x Hum	Mike Holers	+	N/A	-
Isotype control	MoAb	Rat IgG2a-kappa	Biolegend	-	-	-
8C12	MoAb	Rat x Mou	BD	-	+	-
7E9	MoAb	Rat x Hum	Biolegend	-	+	-
7G6	MoAb	Rat x Mou	Biolegend	-	+	-
EP3093	MoAb	Rab x Hum	Epitomics	+	+	-
D-19	PoAb	Goa x Mou	Santa Cruz Biotechnology	+	N/A	-
M-19	PoAb	Goa x Mou	Santacruz Biotechnology	+	N/A	-
A-3	MoAb	Mou x Hum	Santacruz Biotechnology	-	N/A	-
31R	MoAb	Mou x Hum	Cell Sciences	-	N/A	-
21B9	MoAb	Mou x Hum	Cell Sciences	-	N/A	-
B-ly4	MoAb	Mou x Hum	Cell Sciences	-	N/A	-

MoAb monoclonal antibody, monoclonal; PoAb, polyclonal antibody