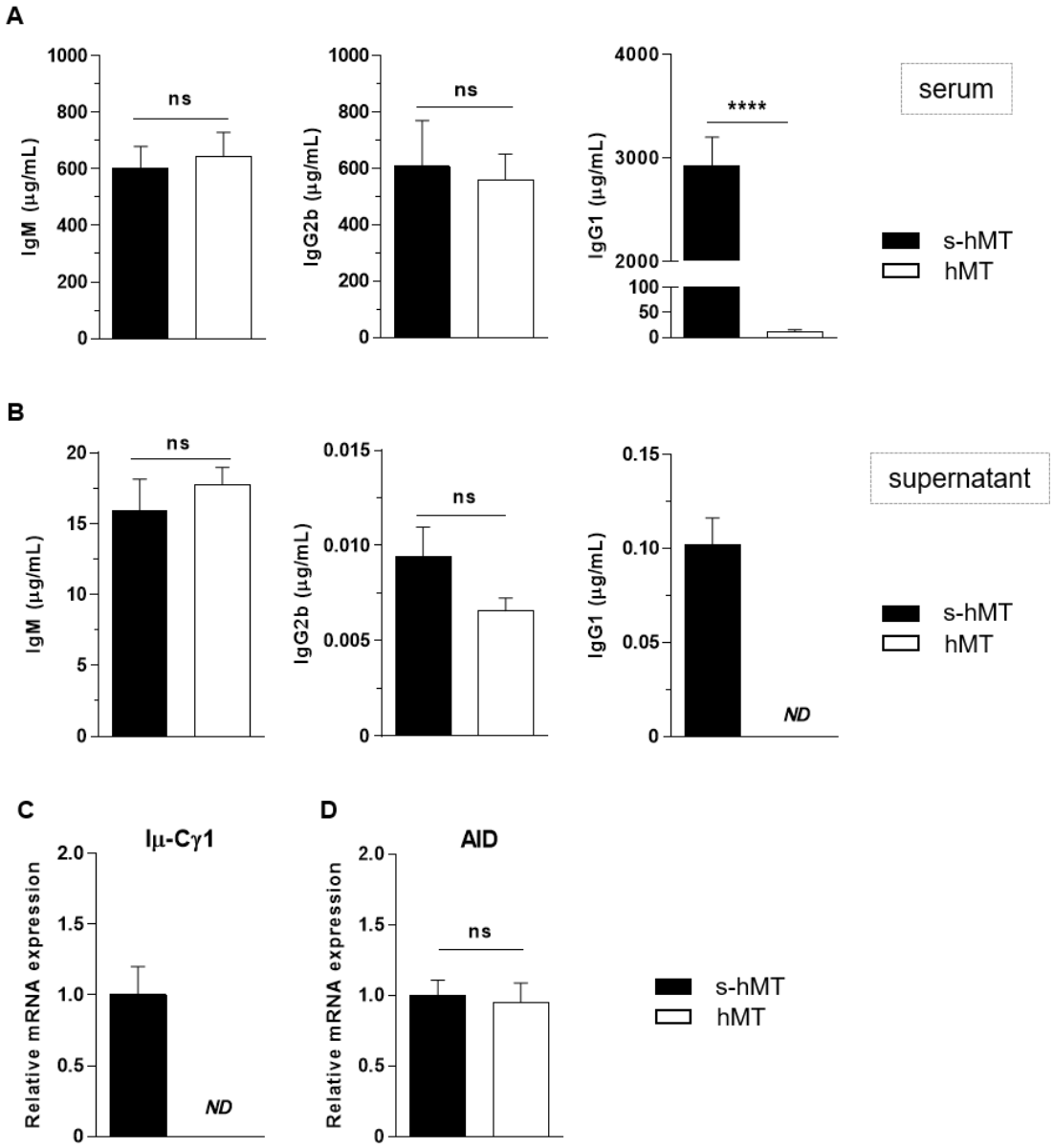
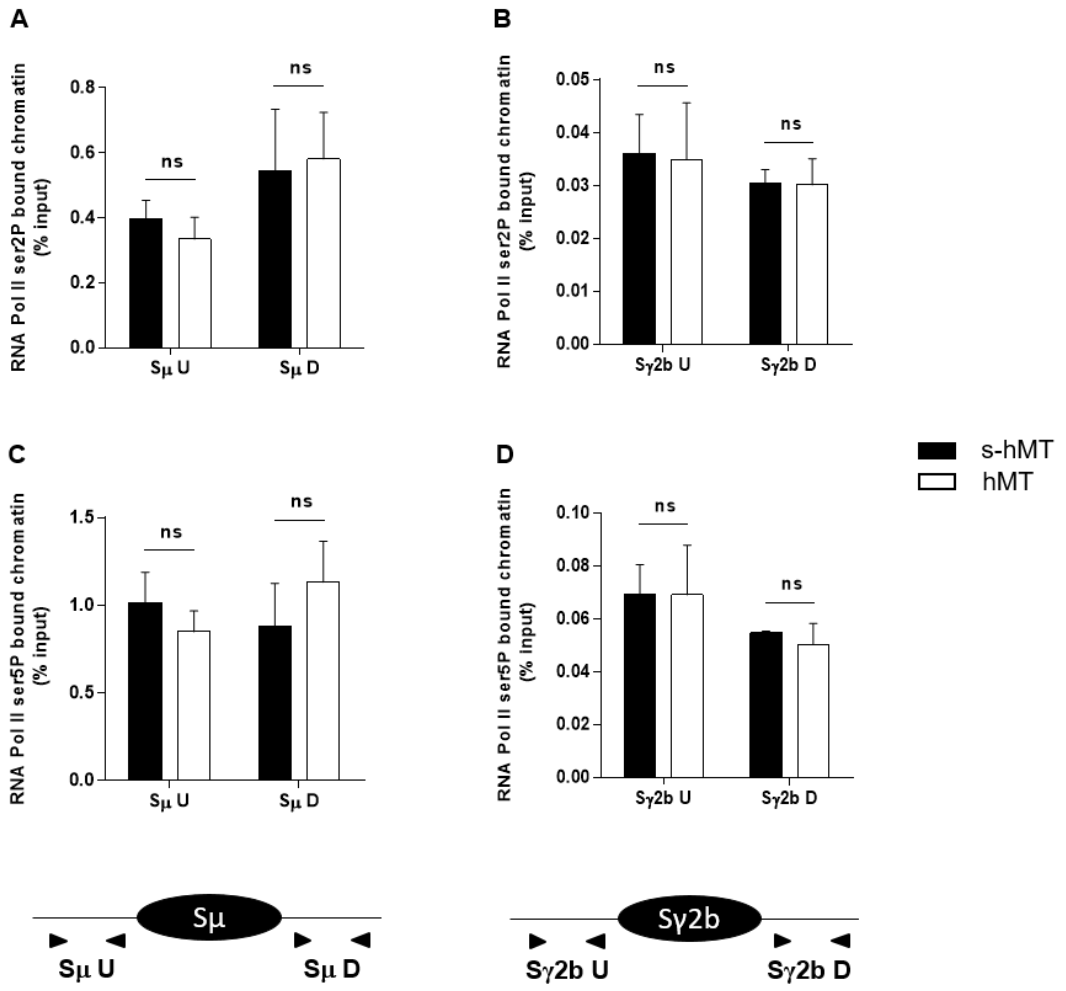


Supplementary figure 1. Defect of IgG1 class switching in mice lacking Iγ1 dss

(A) Quantification of Ig isotypes (IgM, IgG2b, and IgG1) in sera of homozygous *s-hMT* and *hMT* mice by ELISA. (B-D) Splenic B cells were isolated from homozygous *s-hMT* and *hMT* mice and stimulated with LPS. After 4 days stimulation, amounts of Ig isotypes (IgM, IgG2b, and IgG1) were determined in culture supernatants by ELISA (B). After 3 days stimulation, post-switch Iμ-Cγ1 (C) and AID (D) mRNA expression relative to GAPDH mRNA expression was monitored by quantitative RT-PCR. Expression of Iμ-Cγ1 or AID in B cells from *s-hMT* mice was normalized to 1. Data are means ± SEM, n=3 to 4 for each genotype. Unpaired two-tailed Student's t test was used to determine significance. ND: not detected, ns: non significant, **** $P < 0.0001$.



Supplementary figure 2. Similar RNA pol II binding in Sμ and Sγ2b regions of *s-hMT* and *hMT* mice

Splenic B cells were isolated from homozygous *s-hMT* and *hMT* mice and stimulated with LPS. After 2 days, the cells were analyzed for Ser2P RNA pol II (A, B) and Ser5P RNA pol II (C, D) levels in Sμ (A, C) and Sγ2b (B, D) regions by ChIP coupled to quantitative PCR. Background signals from mock samples with irrelevant antibody were subtracted. Values were normalized to total input DNA. Primers (triangles) used for quantitative PCR are described on the illustrative schema (bottom). Data are means ± SEM of at least two independent experiments, n=4 for each genotype. Unpaired two tailed Student's t test was used to determine significance. ns: non significant.

Supplementary figure 3: Sequences of γ1 constitutive and alternative spliced transcripts

The sequences of Iγ1 exon (bold) and CH1γ1 exon are indicated. Donor (red) and acceptor (green) splice sites are also represented.

Constitutive γ1 transcript:

GTCAATCATATGATGGAAAGAGGGTAGCATTCACCTCTCTGGGACAAAGGCT
GTGACTCTGGGAAAGACAAGAGAAGGGCAGGACCAAAACAGGAACAGAGAC
GGCTGCTTTCACAGCTTCCACATGTGAGTGGGGTCAGCAGGGAAAGGAGCT
GCAAGAAGAGGCCATACAAACAGCACGCATCTGTGGCCCTTCCAGATCTTTG
AGTCATCCTATCACGGGAGATTGGGAAGGAGTTGACAGACCAGCCCAGGCA
GAGGAAGCCTCTGTGTTAAAGAGTAAAGGTGCTTGCCTACAGCCTGGTGTCA
ACTAGGCAGGCCCTGGGGGGCCGGGAAGGGGCCTCCTAGACAAGCACAGGC
ATGTAGAGCTGCACACCCCACAGACAAACCTGAGCCCCGAGGATATCATGG
AATATATCGAGAAGCCTGAGGAATGTGTTTGGCATGGACTACAGGTTGAGAG
AACCAAGGAAGCTGAGCCCTGCGCCAAAACGACACCCCCATCTGTCTATCCAC
TGGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGCCTGGT
CAAGGGCTATTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCCTGTCC
AGCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCTGACCTCTACACTCTGAGCA
GCTCAGTGACTGTCCCCTCCAGCACCTGGCCCAGCCAGACCGTCACCTGCAACGT
TGCCCACCCGGCCAGCAGCACCAAGGTGGACAAGAAAATTG

Alternative γ1 transcript 1:

GTCAATCATATGATGGAAAGAGGGTAGCATTCACCTCTCTGGGACAAAGGCT
GTGACTCTGGGAAAGACAAGAGAAGGGCAGGACCAAAACAGGAACAGAGAC
GGCTGCTTTCACAGCTTCCACATACAAACCTGAGCCCCGAGGATATCATGGA
ATATATCGAGAAGCCTGAGGAATGTGTTTGGCATGGACTACAGGTTGAGAGA
ACCAAGGAAGCTGAGCCCTGCGCCAAAACGACACCCCCATCTGTCTATCCACT
GGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGCCTGGTC
AAGGGCTATTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCCTGTCCA
GCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCTGACCTCTACACTCTGAGCAG
CTCAGTGACTGTCCCCTCCAGCACCTGGCCCAGCCAGACCGTCACCTGCAACGTT
GCCCACCCGGCCAGCAGCACCAAGGTGGACAAGAAAATTG

Alternative γ1 transcript 2:

GTCAATCATATGATGGAAAGAGGGTAGCATTCACCTCTCTGGGACAAAGGCT
GTGACTCTGGGAAAGACAAGAGAAGGGCAGGACCAAAACAGGAACAGAGAC
GGCTGCTTTCACAGCTTCCACATCCAAAACGACACCCCCATCTGTCTATCCACT
GGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGCCTGGTC
AAGGGCTATTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCCTGTCCA
GCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCTGACCTCTACACTCTGAGCAG

CTCAGTGACTGTCCCCTCCAGCACCTGGCCCAGCCAGACCGTCACCTGCAACGTT
GCCCACCCGGCCAGCAGCACCAAGGTGGACAAGAAAATTG

Alternative γ1 transcript 3:

GTCAATCATATGATGGAAAGAGGGTAGCATTCACCTCTCTGGGACAAAGGCT
GTGACTCTGGGAAAGACAAGAGAAGGGCAGGACCAAAACAGGAACAGAGAC
GGCTGCTTTCACAGCTTCCACATGT**GAGTGGGGTCAGCAGGGAAAGGAGCT**
GCAAGAAGAGGCCATACAAACAGCACGCATCTGTGGCCCTTCCAGATCTTTG
AGTCATCCTATCACGGGAGATTGGGAAGGAGTTGACAGACCAGCCCAGGCA
GAGGAAGCCTCTGTGTTAAAGAGTAAAG**CC**AAAACGACACCCCCATCTGTCTA
TCCACTGGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGC
CTGGTCAAGGGCTATTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCC
TGTCCAGCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCTGACCTCTACACTCTG
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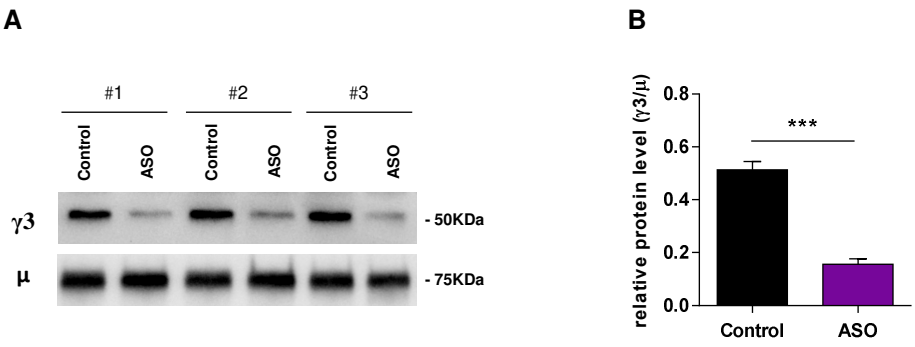

Supplementary figure 4. Decreased γ3 heavy chain protein levels in B cells treated by Iμ exon dss ASO

Splenic B cells were isolated from *C57BL/6* mice, stimulated with 5 μg/ml LPS and treated with 4 μM Iμ dss ASO or an irrelevant control ASO for 4 days. **(A)** γ3 and μ heavy chain protein levels were analyzed by Western Blot. **(B)** Quantification of γ3 heavy chain protein expression relative to μ heavy chain protein expression. Data are means ± SEM, n=3 for each group. Unpaired two-tailed Student's t test was used to determine significance. *** P <0.001.