Supporting Information

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days after Ft-LPS injection

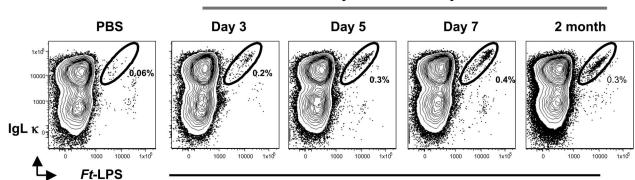


Fig. S1. *Ft*-LPS induces the appearance of PerC *Ft*-LPS-binding (*Ft*-LPS+) B cells. PerC cells from C57BL/6J mice immunized i.p. with *Ft*-LPS are stained with fluorochrome-labeled *Ft*-LPS and fluorescent antibodies recognizing a panel of B cell surface antigens. The total live B cell (CD19+) population is gated to display κ-light chain expression and *Ft*-LPS binding. The circled cells in each FACS plot are PerC B cells that bind *Ft*-LPS, and the relative proportion of these cells in total B cell population is indicated.

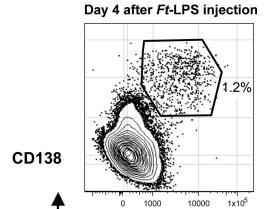


Fig. S2. CD138^{hi} surface IgM^+ B cells in the spleen expressing high levels of intracellular IgM. Live splenic B cells (B220⁺ IgM^+) from mice immunized with Ft-LPS 4 days prior are gated to display surface CD138 expression and intracellular IgM level. Cells in the gate represent IgM plasma cells or plasmablasts (\approx 30% of which are Ft-LPS+) that express high levels of CD138 and intracellular IgM.

1000

Intracellular IgM

10000



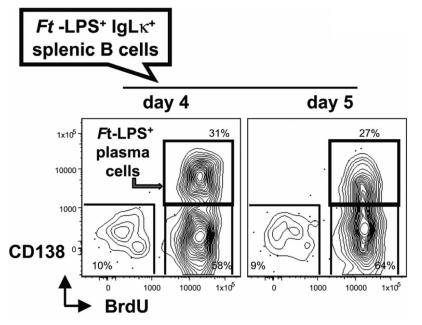


Fig. S3. Ft-LPS⁺ B-1a cells in spleen undergo cell division during the first 4 to 5 days after Ft-LPS immunization. One day after i.p. injection of 100 ng Ft-LPS, mice are provided with BrdU-containing (0.8 mg/mL) water for 3 to 4 days. Live Ft-LPS⁺ lgκ⁺ splenic B-1a cells on day 4 and day 5 after Ft-LPS immunization are gated to display CD138 expression and BrdU-incorporation (an index of cell division).

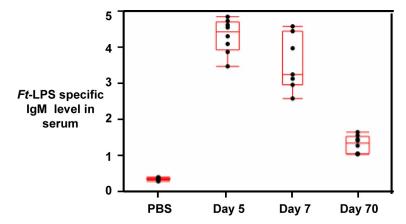


Fig. S4. Low levels of *Ft*-LPS-specific IgM antibodies are sustained in serum long after *Ft*-LPS immunization. Serum from PBS control mice or mice immunized with *Ft*-LPS are collected 5, 7, and 70 days after immunization and serum anti-*Ft*-LPS IgM antibodies are measured using a FACS "bead assay," in which the amount of fluorescent signaling (mean fluorescent intensity) is proportionally indicative of the amount of *Ft*-LPS-specific IgM in serum. Each dot represents data from an individual mouse. Horizontal lines in the "quartile box plots" indicate the 25th, 50th, and 75th percentile values.

Table S1. Pretreatment of antibody-deficient mice with Ft-LPS fails to afford protection against lethal Ft LVS challenge

Strain	Phenotype	Treatment (Day 0)	Challenge (Day 3)	Live/Total	% Survival	MTD*
BALB/cByJ	WT	Saline	≈10 ³ Ft LVS	0/5	0	5.4 ± 0.6
JhD	No B cells No Abs	Saline	≈10 ³ Ft LVS	0/5	0	6.4 ± 0.9
BALB/cByJ	WT	100 ng LPS	$\approx 10^3 Ft \text{LVS}$	5/5	100	_
JhD	No B cells No Abs	100 ng LPS	≈10 ³ Ft LVS	0/5	0	6.6 ± 0.5
mlg-Tg	Mature B cells No secreted Ab	100 ng LPS	≈10 ³ Ft LVS	0/5	0	6.8 ± 0.4
(m+s)lg-Tg	Mature B cells Restricted secreted Ab	100 ng LPS	≈10 ³ Ft LVS	0/4	0	6.8 ± 0.5

Male WT (BALB/cByJ) and mice from B cell/antibody-deficient strains were pretreated with saline or 100 ng Ft-LPS intradermally (i.d.) 3 days prior to challenge with $\approx 10^3$ CFU Ft LVS i.p. Results are derived from a single representative experiment of 3 experiments of similar design and outcome. *Arithmetic mean time to death (MTD) \pm SD

Table S2. Pretreatment of Btk, B-1a cell-deficient xid mice with Ft-LPS fails to afford protection against lethal Ft LVS challenge

Strain	Phenotype	Treatment (Day 0)	Challenge (Day 3)	Live/Total	% Survival	MTD*
CBA/CaJ	WT	Saline	10 ² Ft LVS	0/6	0	7 ± 0.6
CBA/CaJ	WT	100 ng LPS	10 ² Ft LVS	6/6	100	_
CBA-xid	Btk-,	Saline	10 ² Ft LVS	0/6	0	6.7 ± 0.8
	B-1a-deficient					
CBA-xid	Btk-,	100 ng LPS	10 ² Ft LVS	0/4	0	6.5 ± 0.8
	B-1a-deficient					

Male WT (CBA/CaJ) and xid (CBA/CaHN-BTK <xid>/J) mice were pretreated with saline or 100 ng Ft-LPS i.d. 3 days prior to challenge with 10^2 CFU Ft LVS i.p. Results are shown from a single representative experiment of 3 experiments of similar design and outcome. *Arithmetic MTD \pm SD.