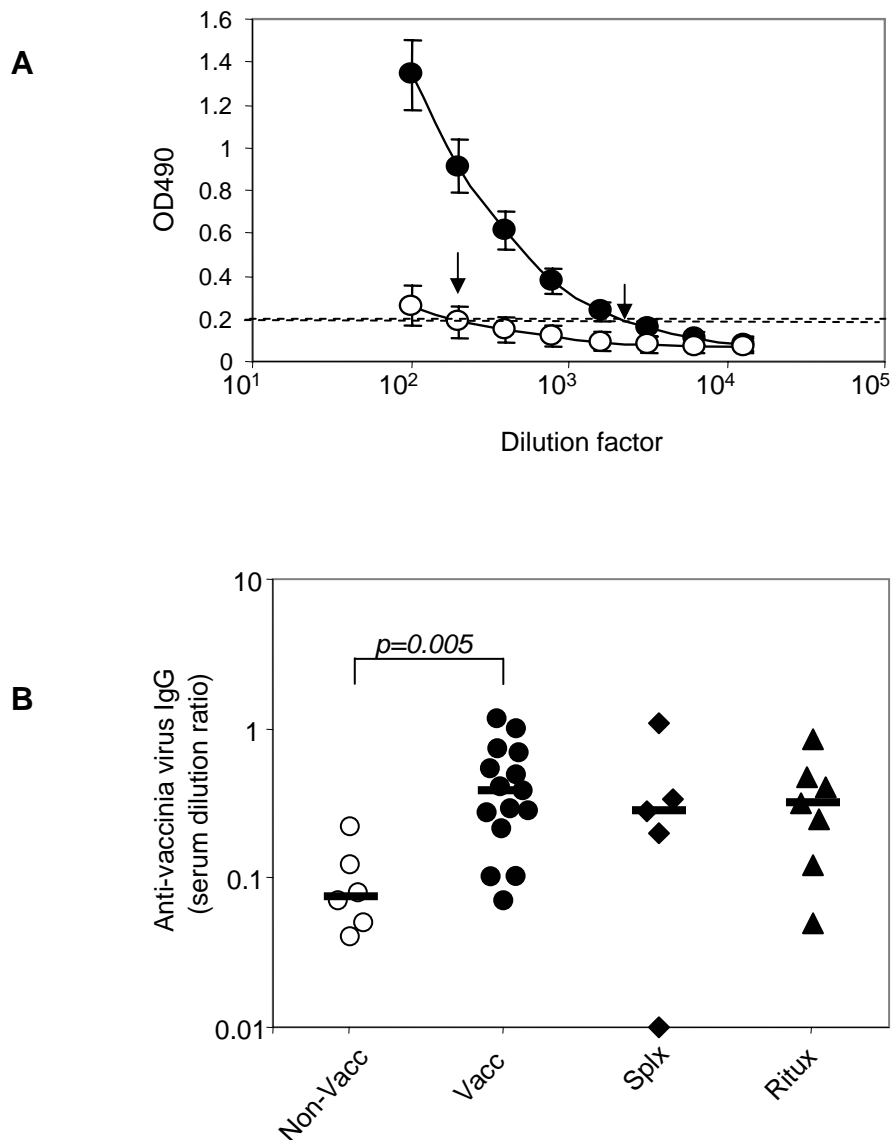


## Supplemental Figure S1



**Anti-vaccinia virus antibodies in vaccinated / non-vaccinated individuals.** (A) Determination of the anti-vaccinia virus titer: for each serum sample the last dilution factor for which the O.D. is over the baseline (dotted line at O.D.=0.2) is divided by the corresponding value of the reference serum (solid circles). Arrows show these values. In this case the ratio of the non-vaccinated control serum (open circles) is 0.07. (B) Anti-vaccinia virus IgG titers for non-vaccinated, vaccinated, splenectomized and rituximab-treated patients. The bold line indicates the median value for each group.  $p$  was determined by a Kruskal-Wallis test.

**Supplemental Table S1. Main characteristics of patients undergoing splenectomy or bone marrow sampling**

<b>Patient</b>	<b>Age at splenectomy (years) / Sex</b>	<b>Diagnosis</b>	<b>Treatment at time of sample collection</b>	<b>% CD19<sup>+</sup> cells / %IgG<sup>+</sup> cells among CD19<sup>+</sup> cells</b>	<b>Previous history / Other</b>
V10	75 / F	BPT	No treatment	Blood: 4 / 12.1 Spleen: 26 / 21	
V11	74 / F	BPT	No treatment	Blood: nd Spleen: 69 / 12.5	Breast cancer in 1992 treated by 2 months of chemotherapy / current diabetes
V12	66 / M	ITP	Intravenous polyclonal Ig	Blood: 8 / 12 Spleen: 50 / 23	
V13	59 / F	MPT	No treatment	Blood: 1.8 / 34.5 Spleen: 38 / 23.4	
V14	58 / F	BPT	No treatment	Blood : 13 / 6.4 Spleen: 28 / 7.3	
V15	57 / F	MPT	No treatment	Blood: nd Spleen: 47 / 11.4	
V16	53 / M	BPT	No treatment	Blood: nd Spleen: 40 / 3.8	
V17	45 / F	MPT	No treatment	Blood: 3 / 11 Spleen: 35 / 13	
V18	31 / F	ITP	Intravenous polyclonal Ig	Blood: 20 / 14 Spleen: 53 / 13	Single anti-smallpox vaccination received in childhood
V19	53 / M	Lung cancer	3 weeks of cisplatin/docetaxel	Blood: 12 / 15.8 Bone marrow: 8.8 / 9.8	
V20	47 / F	ITP	No treatment	Blood: 9.6 / 4.4 Bone marrow: 32 / 1.8	
C8	17 / M	Physical trauma	No treatment	Blood: 13 / 15 Spleen: 64 / 14	
C9	7 / F	Microspherocytosis	No treatment	Blood: nd Spleen: 47 / 16.4	

BPT: benign pancreatic tumor; MPT: malignant pancreatic tumor; ITP: idiopathic thrombocytopenic purpura

**Supplemental Table S2. Main characteristics of rituximab-treated patients**

Patient	Age at sample collection (years) / Sex	Months after last rituximab administration	Reasons for rituximab	Rituximab regimen (weekly infusion)	Treatment at time of sample collection	% CD19 <sup>+</sup> cells / %IgG <sup>+</sup> cells among CD19 <sup>+</sup> cells
RTX1	83 / F	39	Chronic ITP	4 x rituximab 375 mg/m <sup>2</sup>	Danazol 200 mg Prednisone (10 mg/day)	Blood: 8.5 / 2.3
RTX2	61 / F	27	SGS	2 x rituximab 375 mg/m <sup>2</sup>	No treatment	Blood: 5.3 / 1.6
RTX3	55 / F	29	NHL	6 x (CHOP + rituximab 375 mg/m <sup>2</sup> )	No treatment	Blood: 12 / 3
RTX4	45 / F	25	NHL	8 x (CHOP + rituximab 375 mg/m <sup>2</sup> )	No treatment	Blood : 12 / 3
RTX5	42 / F	32	SGS	2 x rituximab 375 mg/m <sup>2</sup>	No treatment	Blood : 31 / 2
RTX6	79 / F	3	Chronic ITP	4 x rituximab 375 mg/m <sup>2</sup>	Intravenous polyclonal Ig	Blood : 0 Spleen : 0.1 / 90
RTX7	70 / F	6	Chronic ITP	4 x rituximab 375 mg/m <sup>2</sup>	Prednisone 40 mg, 5 days previously / Intravenous polyclonal Ig 7 days previously	Blood: 1.6 / nd Spleen: 10 / 5
RTX8	62 / F	15	Chronic ITP	4 x rituximab 375 mg/m <sup>2</sup>	Cortancyl 80 mg/day / Tamoxifen	Blood : 20 / 2.9 Spleen : 38 / 1
RTX9	67 / F	2 + 36*	Chronic ITP	4 x rituximab 375 mg/m <sup>2</sup>	No treatment	Blood : 28 / 4.8

\*Patient was splenectomized 2 months after rituximab treatment. Blood was collected 36 months after splenectomy.

NHL: Non-Hodgkin's lymphoma; SGS: Sjogren's syndrome; ITP: idiopathic thrombocytopenic purpura

CHOP: cyclophosphamide, doxorubicin, vincristine, prednisone

**Supplemental Table S3. Main characteristics of splenectomized patients**

<b>Patient</b>	<b>Age at splenectomy (years) / Sex</b>	<b>Years after splenectomy</b>	<b>Cause of splenectomy</b>	<b>Treatment at time of blood collection</b>	<b>% CD19<sup>+</sup> cells / %IgG<sup>+</sup> cells among CD19<sup>+</sup> cells in blood</b>	<b>Previous history / Others</b>
SPL1	10 / M	50	Congenital myelodyspoiesis	No treatment	11 / 11	Hereditary hyperbilirubinemia (Dubin Johnson syndrome)
SPL2	15 / F	44	Physical trauma	No treatment	17 / 4.7	Small accessory spleens observed
SPL3	45 / M	7	ITP	No treatment	17.8 / 4	Received intravenous polyclonal Ig 5 weeks previously
SPL4	11 / F	35	Microspherocytosis	No treatment	9.2 / 8	
SPL5	5 / M	30	Microspherocytosis	No treatment	10 / 13.3	

ITP: idiopathic thrombocytopenic purpura