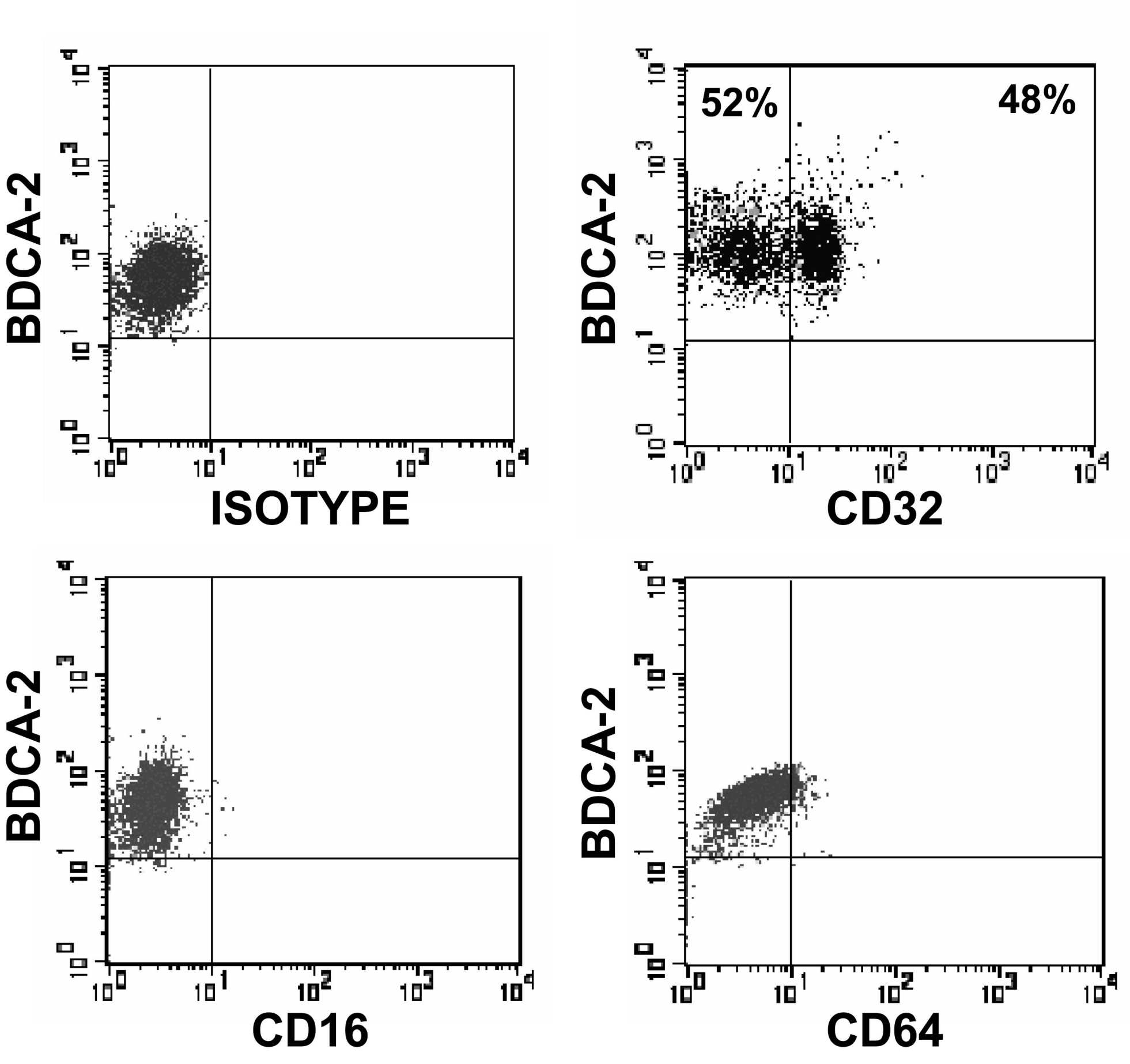
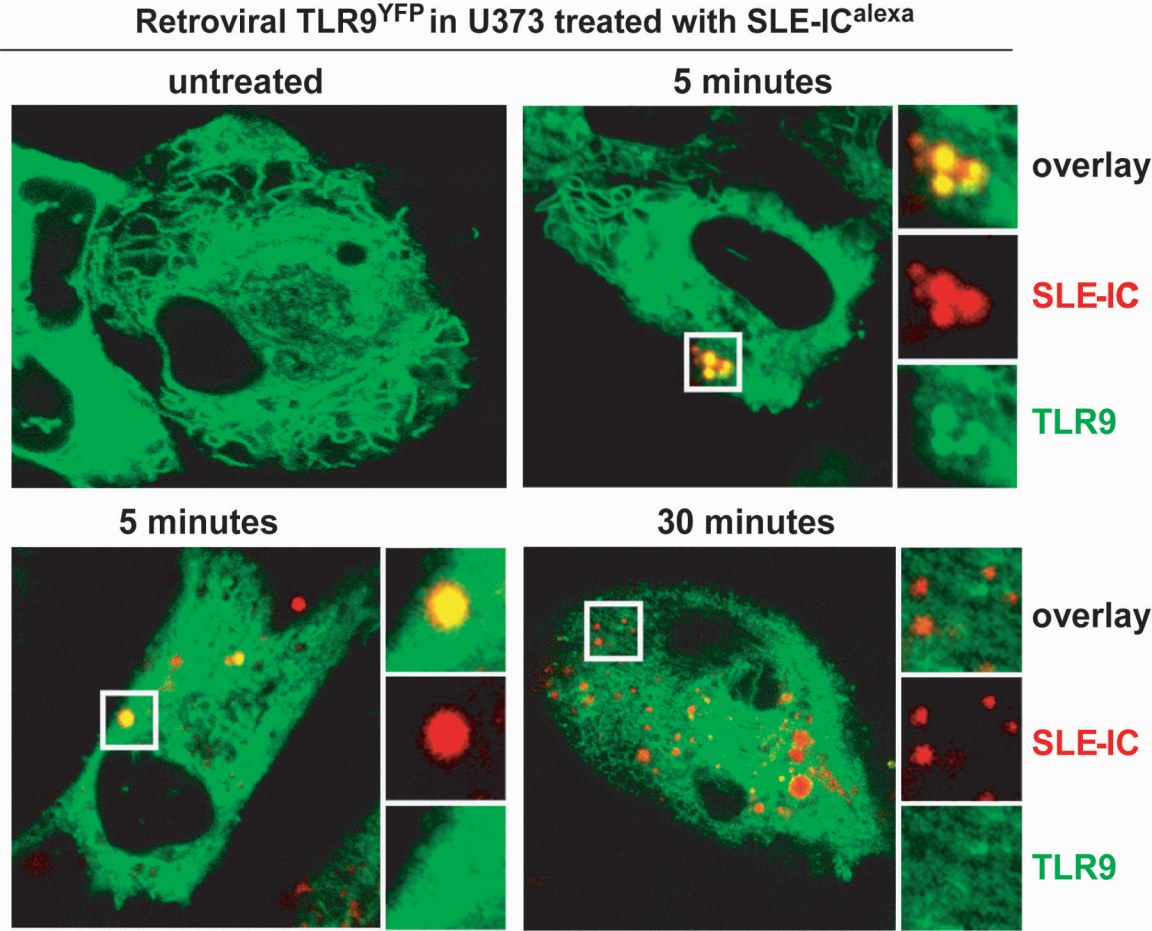

BDCA-2
ISOTYPE
BDCA-2
52%
48%
CD32
BDCA-2
CD16
BDCA-2
CD64


Retroviral TLR9YFP in U373 treated with SLE-ICalexa
untreated
5 minutes
overlay
SLE-IC
TLR9
5 minutes
30 minutes
overlay
SLE-IC
TLR9

Patient ID#	HEp-2 ANA test, staining pattern	anti-DNA Crithidia luciliae	anti-DNA ELISA	C1q ELISA	IgG1, IgG2, IgG3, IgG4 subclass	Disease type
SLE1	1:5120, homogeneous	1:100	+++	+++	76%, 21%, 0%, 0%	SLE
SLE2	1:1280, homogeneous	1:320	+++	+++	65%, 11%, 24%, 0%	SLE, renal disease
SLE3	1:2560, speckled	1:160	++	++	62%, 22%, 18%, 3%	SLE
SLE4	1:5120, homogenous	1:320	++	+++	44%, 34%, 21%, 0%	SLE, renal disease
SLE5	1:2560, homogeneous	1:320	++	++	59%, 32%, 9%, 0%	SLE
SLE6	1:640, speckled	1:160	++	+++	62%, 27%, 10%, 0%	SLE
SLE7	1:5120, homogenous	1:640	+++	+++	57%, 39%, 0%, 1%	SLE
SLE8	1:1280, homogeneous	1:80	+	+	71%, 19, 9%, 0%	SLE
SLE9	1:1280, homogeneous	1:160	++	++	66%, 30%, 2%, 2%	SLE, renal disease
SLE10	1:5120, speckled	1:320	+++	++	71%, 29%, 0%, 0%	SLE, renal disease
SLE11	1:640, speckled	1:160	++	++	60%, 22%, 13%, 4%	SLE
SLE12	1:2560, homogeneous	1:160	++	+	79%, 20%, 0%, 0%	SLE
SJO1	1:2560, speckled	NEGATIVE	NEGATIVE	++		Sjogren Syndrome
SJO2	1:640, homogeneous	NEGATIVE	NEGATIVE	++		Sjogren Syndrome
SJO3	1:1280, homogeneous	NEGATIVE	NEGATIVE	+		Sjogren Syndrome
SJO4	1:640, homogeneous	NEGATIVE	NEGATIVE	++		Sjogren Syndrome
SJO5	1:2560, speckled	NEGATIVE	NEGATIVE	++		Sjogren Syndrome
SJO6	1:2560, speckled	NEGATIVE	NEGATIVE	+++		Sjogren Syndrome
RA1	1:5120, speckled	NEGATIVE	NEGATIVE	++		Rheumatoid Arthritis
RA2	1:2560, speckled	NEGATIVE	NEGATIVE	++		Rheumatoid Arthritis
RA3	1:1280, homogeneous	NEGATIVE	NEGATIVE	+		Rheumatoid Arthritis
RA4	1:640, speckled	NEGATIVE	NEGATIVE	++		Rheumatoid Arthritis
RA5	1:640, homogeneous	NEGATIVE	NEGATIVE	+++		Rheumatoid Arthritis
RA6	1:1280, homogeneous	NEGATIVE	NEGATIVE	++		Rheumatoid Arthritis
RA7	1:5120, speckled	NEGATIVE	NEGATIVE	+++		Rheumatoid Arthritis
RA8	1:1280, homogeneous	NEGATIVE	NEGATIVE	+		Rheumatoid Arthritis
Normal1	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal2	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal3	NEGATIVE	NEGATIVE	NEGATIVE	+		none
Normal4	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal5	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal6	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal7	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none
Normal8	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE		none

Supplementary Figure 1. FcR expression on human PDC. Human PDC were isolated from PBMCs using anti-BDCA-4 microbeads. Surface expression of FcR's was determined by flow cytometry using anti-BDCA-2-FITC and anti-CD16-PE, anti-CD32-PE, or anti-CD64-PE antibodies. Data are representative of 3 similar experiments conducted on 3 different donors.

Supplementary Figure 2. SLE-IC and TLR9 associate. YFP-tagged TLR9 (green) expressing U373 cells were incubated with Alexa Fluor 633-conjugated SLE-IC (red) for 5 or 30 minutes and living cells were imaged by confocal microscopy.

Supplementary Table 1. Summary of patient data and immune complex characterization. Anti-DNA ELISA is negative if anti-DNA IgG is <20 IU/mL, (+) if 30-60 IU/mL, (++) if 60-100 IU/mL, and (+++) if >100 IU/mL. Anti-C1q ELISA is negative if anti-C1q IgG is <40 μg/mL, (+) 40-50 μg/mL, (++) 50-80 μg/mL, (+++) >80 μg/mL. The anti-IgG subclass ELISA column demonstrates the IgG subclass distribution of anti-DNA antibodies in SLE patient sera. The average distribution of anti-DNA antibodies in SLE sera (n=12) was 64.3±8.9% IgG1, 25.5%±7.4% IgG2, 8.8%±6.0% IgG3, 0.8%±1.5% IgG4.