Supplementary Methods

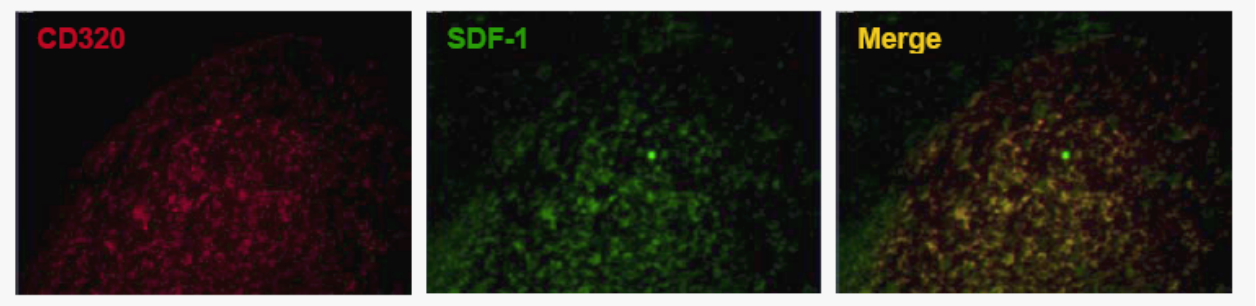
Tumorgenesis and serial tumour transplantation:

FLK-1 (1×10^6) were inoculated s.c. into NOD/SCID mice with or without HK cells (1×10^6) for the primary tumour formation. For the secondary transplantations, primary tumours were removed when they reached 1 cubic cm in size. Single cell suspensions were isolated from primary tumours and then tumour cells were re-injected s.c. into new NOD/SCID mice with HK cells (1×10^6). The experiments were repeated for the third and fourth transplantations.

Lymphoma cell growth assay:

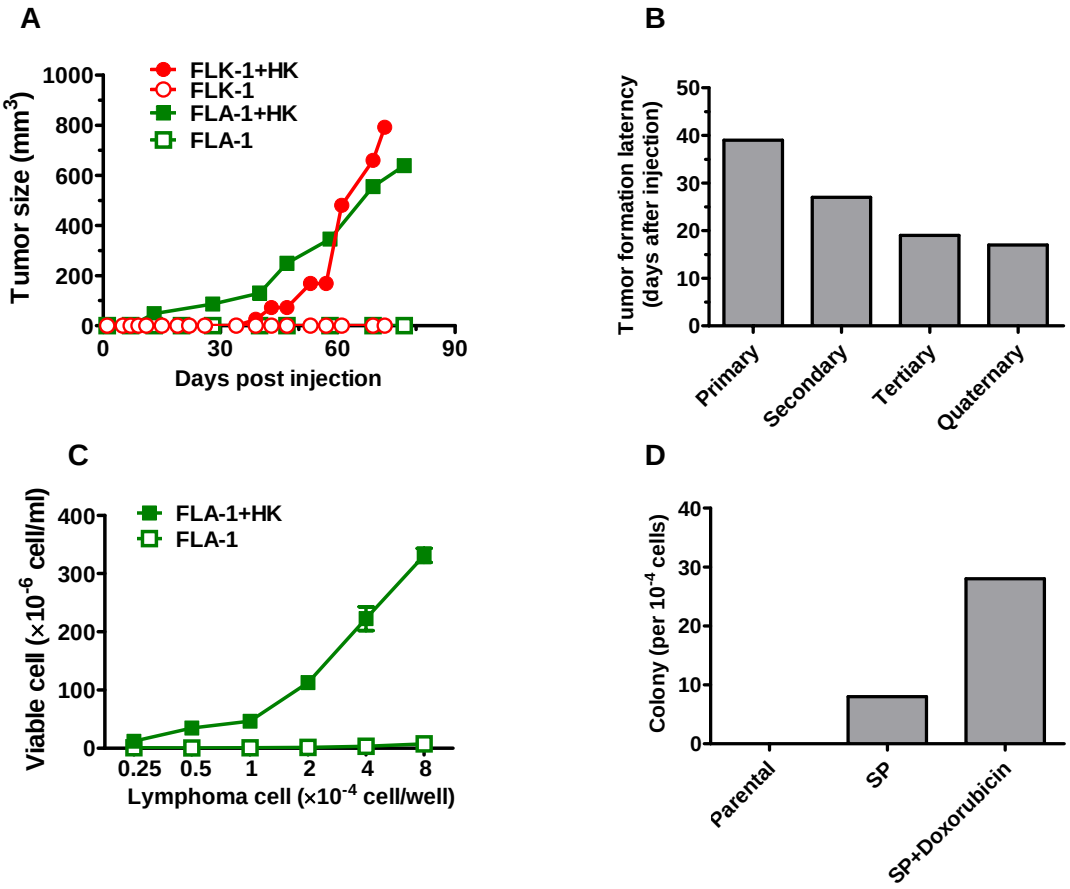
Primary lymphoma FLA-1 cells (2×10^4 cells/well) were cultured in Iscove's media containing 10% FCS with or without irradiated HK cells (50 Gy, 2×10^4 cells/well) that were seeded in 24 well plates one day before. Viable lymphoma cells were counted using trypan blue exclusion after three days. Triplicate data from 1 out of 4 similar experiments are shown.

Supplementary Figure 1: FDC express CXCL12



Immunofluorescent staining of frozen tonsil slides with PE-conjugated anti-CD320 (an FDC marker, red) and mouse anti-human CXCL12 Ab followed by FITC-conjugated goat anti-mouse Ig Ab (green). Yellow color in merge shows co-expression of both Ags in GC.

Supplementary Figure 2: FL cells depend on HK cell for growth and tumour formation



(A). FLK-1 (4×10^6) or FLA-1 (8×10^6) cells were inoculated s.c. into NOD/SCID mice with (solid figures) or without (empty figures) HK cells (1×10^6). Tumour sizes in mm^3 were measured at the indicated time points. (B). Serial transplantation results. FLK-1cells or tumour cells from xenoplants were mixed with HK cells for a serial transplantation. Bars show visible tumour formation time (days) after injection. (C). FLA-1 cells (0.25 to 8×10^4 cell/well) were cultured without (empty figures) or with (solid figures) HK cells (2×10^4 cell/well). Viable lymphoma cells were counted after three days. Triplicate data from 1 out of 4 similar experiments were shown. (D). Parental and SP cells isolated from FLA-1 lymphoma cells were examined for methylcellulose colony formation. Data represent number of colony formation cells per 1×10^4 cells.

Supplementary Table 1:

FL cell phenotypes				
Surface markers	**FLK-1**	**FLA-1**	**GC B cell**	**Naïve B cell**
CD10	++*	+	+	−
CD19	+	+	+	+
CD20	++	++	+	+
CD38	$++^{high}$	++	$+^{high}$	$+^{low}$
CD44	±	±	−	+
CD77	±	±	+	−
CD27	+	+	+	−
CD34	−	−	−	−
CD133	−	−	−	−
CD117	−	−	−	+
CD24	++	±	−	−
Surface IgD	−	−	−	+

***: "++" indicates >80% positive, "+" for >30-80% positive; "±" for 5-30% positive; and "−" for <5% positive**

Supplementary Table 2:

FLK-1 SP cell phenotypes

Surface markers	FLK-1	
	Parental	**SP**
CD10	99.2*	99.7
CD20	98.8	96.9
CD38	99.2	99.7
CD24	99.4	99.4
CD44	1.64	1.40
CD34	0.89	0.57
CD133	0.25	0.26
ABCG2	1.14	60.8

*: Number indicates positive percentage.