

**Supplementary Figure 1.** Graft coronary arteries with allograft vasculopathy showing distinct patterns of B cell infiltrates. Left panels: Immunohistochemistry staining with CD20 showing B cell infiltrates as nodules or diffuse infiltrates around coronary arteries or adjacent tissue 20X (a–I). Right panels: Immunofluorescence staining with CD20 and CD27 showing the presence memory B cells in nodular or diffuse infiltrates by the co-expression of both markers. 10x.

	Heart Compartment	Total n° of sequences	Unique sequences	Clonality
Patient 1	PBMC	425,558	4,543	0.05
	ENDO	1,011,755	3,282	0.34
	LAD	1,093,855	4,268	0.32
	RCA	333,397	1,996	0.13
Patient 2	PBMC	442,537	4,706	0.04
	LAD	166,508	4,107	0.07
	RCA	272,707	6,492	0.15
	CIRC	285,398	4,413	0.13
Patient 3	PBMC	958,891	13,445	0.03
	ENDO	664,703	8,379	0.05
	LAD	513	19	0.11
	RCA	2,325	10	0.20
Patient 4	PBMC	251,416	6,709	0.04
	ENDO	82,935	1,424	0.15
	LAD	470,331	19,074	0.06
	RCA	160,186	3,129	0.06
	CIRC	170,228	3,157	0.05

Supplementary Table 1. Summary of new generation sequencing results