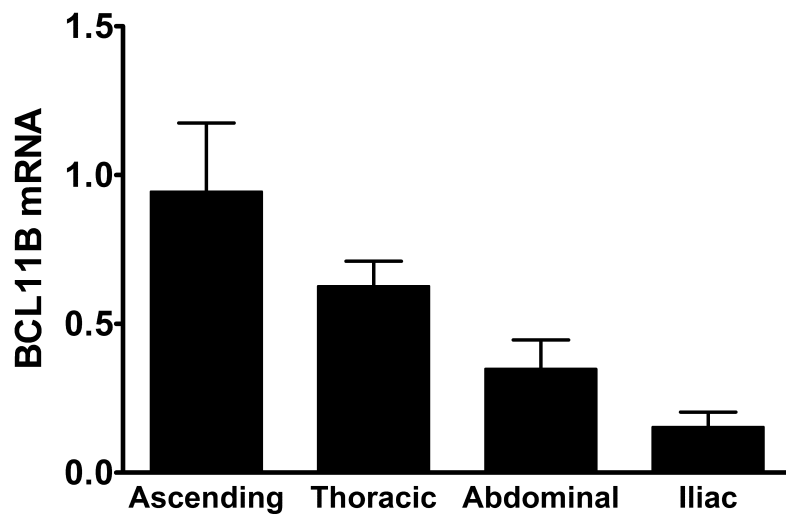
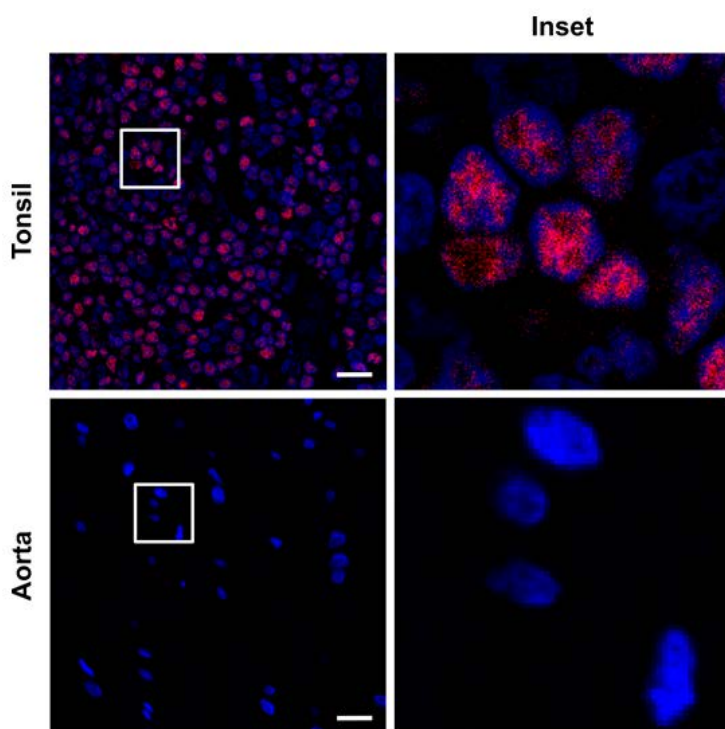


## Supplementary File

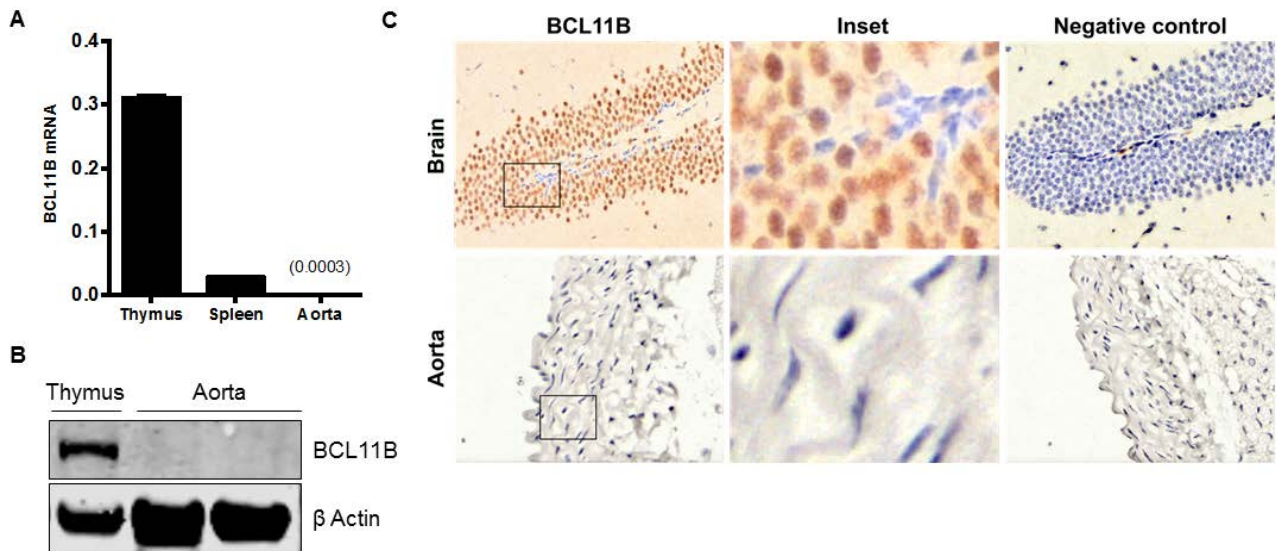
Functional Characterization of Common *BCL11B* Gene Desert Variants suggests an Inflammation-Mediated Association of *BCL11B* with Aortic Stiffness, Al Maskari et al. 2018.



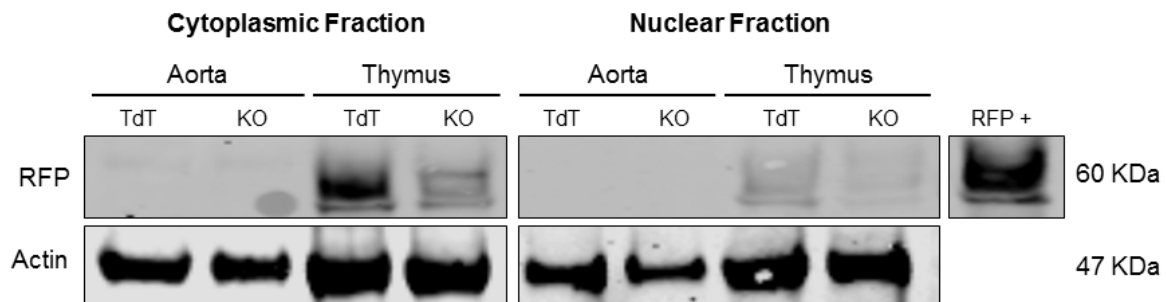
**Supplementary Figure 1. Expression of *BCL11B* mRNA in different segments of the human aorta.** Levels are the  $2^{-\Delta Ct}$  values using GAPDH as house-keeper (mean  $\pm$  SEM).



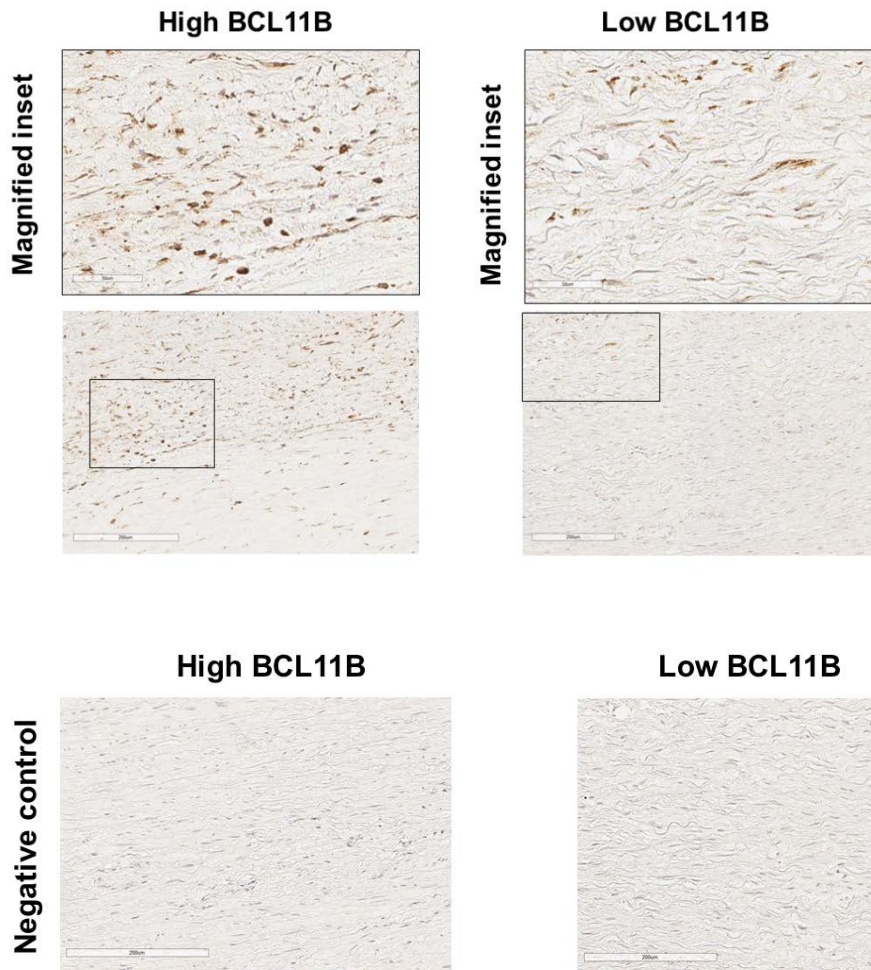
**Supplementary Figure 2. Immunofluorescence staining for *BCL11B* with Tyramide Signal Amplification (TSA) in sections of human tonsil and aorta.** The aortic section is representative of staining in 3 aortas which all showed high *BCL11B* mRNA expression.



**Supplementary Figure 3. Expression of BCL11B in 10 week-old mice.** **A.** BCL11B mRNA quantified by qPCR (expressed as the 2<sup>-Δt</sup> versus r18S). **B.** Immunoblot of aortic and thymus protein from the same mice. **C.** IHC staining for BCL11B using brain (hippocampus sections) as the positive control. Blots and staining are representative of results from 3 mice.



**Supplementary Figure 4. Expression of BCL11B/tdTomato reporter construct in 10 week-old mice.** The aortic and thymus protein extracts were fractionated before immunoblotting to show the relative distribution between the nucleus and cytosol. TdT= BCL11B-tdTomato reporter mice (*Bcl11bTd/flox*)<sup>38</sup>, KO= tdTomato reporter mice treated with tamoxifen (that conditionally knocks out the tdTomato cassette and exon 4 of *Bcl11b*<sup>38</sup>). RFP+ is the positive control of a tdTomato-expressing human colorectal cancer cells.



**Supplementary Figure 5. Representative IHC staining for CD45 antigen on human aortic sections expressing either high or low levels of BCL11B mRNA.**

**Supplementary Table. Summarised phenotypic data by SNP genotype data.**

Parameters	rs1381289 Genotypes				rs10782490 Genotypes				rs17773233 Genotypes			
	CC	CT	TT	p-value	CC	CT	TT	p-value	GG	GT	TT	p-value
Age (years)	58±14	54 ±16	55±15	0.333	56±15	54 ±16	58 ±15	0.217	56±15	53 ±17	64±10	0.124
Male/Female (n)	32/27	61/41	23/17	-	24/24	67/39	24/22	-	76/57	39/23	2/6	-
Height (m)	1.69±0.1	1.72±0.1	1.68±0.1	0.170	1.68±0.1	1.72±0.1	1.68±0.1	0.018	1.70±0.1	1.71±0.1	1.66±0.1	0.401
Weight (kg)	79.7±14	81.0±17	79.7±18	0.859	79.5±15	81.5±17	78.1±17	0.490	79.8±15	83.0±19	68.4±13	0.048
BMI (kg/m <sup>2</sup> )	28.5±7.2	27.2 ±5.0	28.1±5.3	0.406	28.9±7.4	27.3±5.2	27.7±5.3	0.320	27.9±5.9	27.9±5.4	24.7±4.4	0.298
SBP (mmHg)	124±28	129 ±30	119±25	0.144	125±29	127±30	122±25	0.534	126±30	126±26	119±16	0.799
DBP (mmHg)	67±13	69±14	66±14	0.539	67±13	68±14	66±14	0.729	68±14	67±14	74±13	0.339
EM (MPa)	0.16 ±0.1	0.17±0.1	0.19±0.1	0.520	0.16±0.1	0.17±0.1	0.19±0.1	0.506	0.16±0.1	0.18±0.1	0.23±0.2	0.152
PWV (m/s)	3.78±0.8	3.90±1.1	4.00±1.1	0.585	3.77±0.8	3.87±1.1	4.05±1.1	0.428	3.80±0.9	4.05±1.3	4.00±0.9	0.275

Data are mean ± standard deviation.

BMI-body mass index, SBP-systolic blood pressure, DBP-diastolic blood pressure, EM-elastic modulus, PWV-pulse wave velocity.