Supplementary information

Table S1

Figure S1-Figure S4

Table S1. Primer sequences for detection of different cytokine genes using real-time qPCR assays.

Target Gene	Forward Primer (5'→ 3') Reverse Primer (5' → 3')	Template Length (bp)	Tm (℃)
TLR2	Forward Primer: TGCTTTCCTGCTGGAGATTT	197	57.41
	Reverse Primer: TGTAACGCAACAGCTTCAGG		58.77
TLR4	Forward Primer: GGCAGCAGGTGGAATTGTAT	198	58.23
	Reverse Primer: AGGCCCCAGAGTTTTGTTCT		59.15
NF-κB	Forward Primer: TTCCTGGCGAGAGAAGCAC	202	57.89
	Reverse Primer: AAGCTATGGATACTGCGGTCT		47.62
β-actin	Forward Primer: GCTACAGCTTCACCACCACA	208	60.25
	Reverse Primer: AAGGAAGGCTGGAAAAGAGC		58.08

TLR, toll-like receptor; NF-κB, nuclear factor-kappaB; Tm, melting temperature

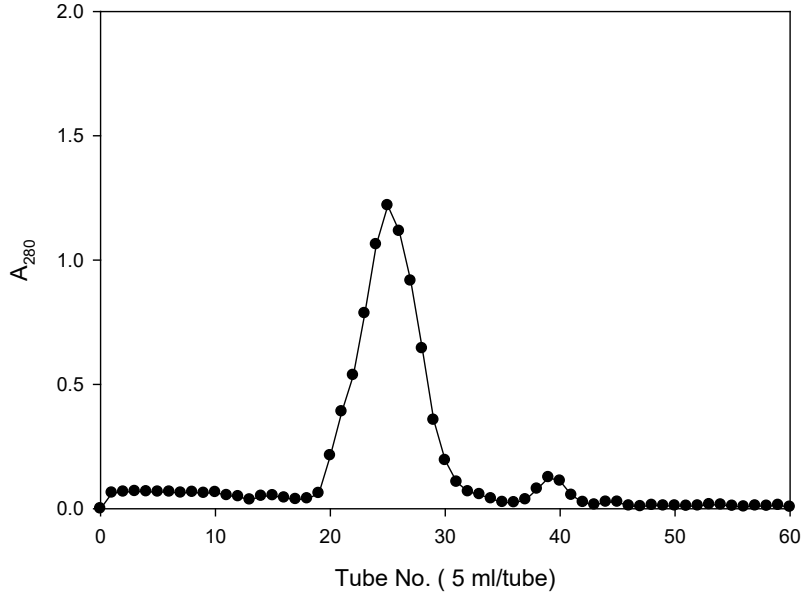
Fig. S1

Aging condition	70 ℃, 80% relative humidity (RH)
raw garlic (0-day) (0dRG)	
10-day black garlic (10dBG)	
17-day black garlic (17dBG)	
20-day black garlic (20dBG)	

Figure S1. The appearance of raw garlic (0-day) and 10-, 17-, and 20-day aged black garlic samples.

Fig. S2

(A)



(B)

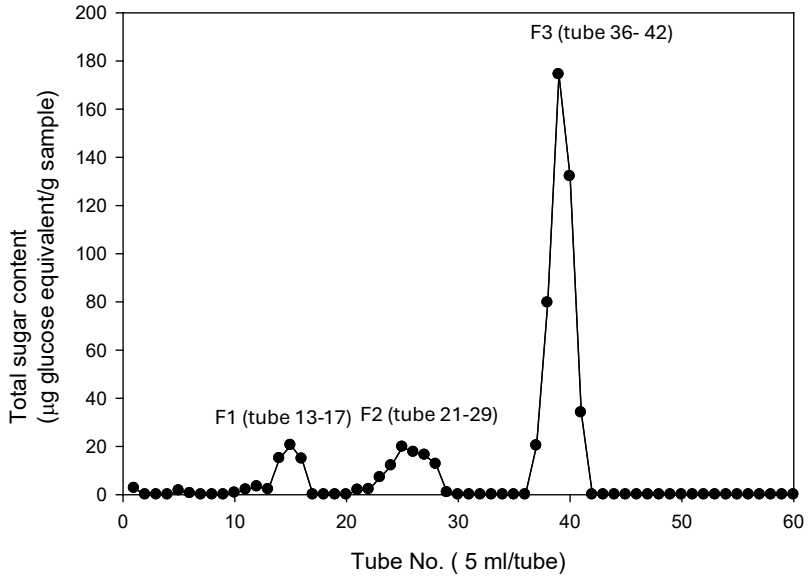


Figure S2. Chromatograms of polysaccharides isolated from black garlic aged for 20 days using Sepharose 6B gel filtration, detected by (A) absorbance at 280 nm and (B) total sugar content determined by the phenol-sulfuric acid method.

Fig. S3

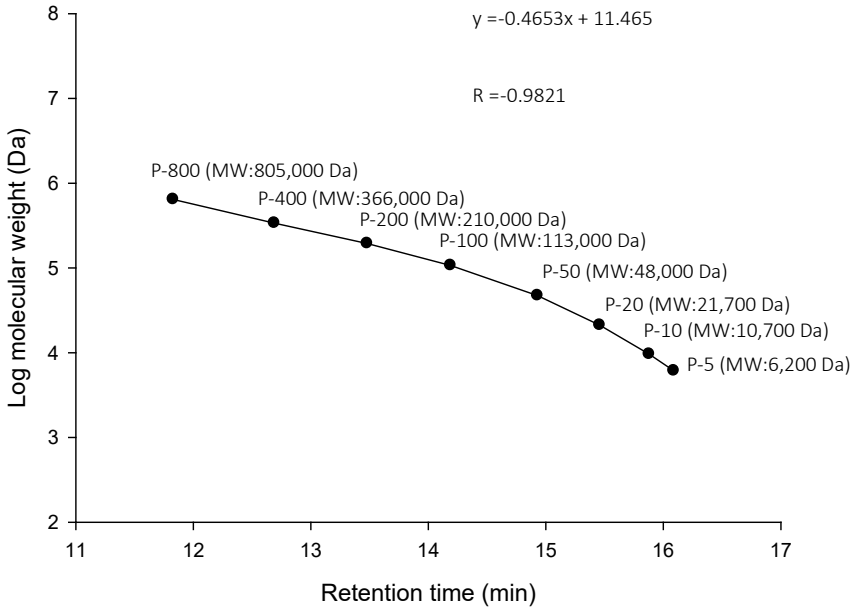
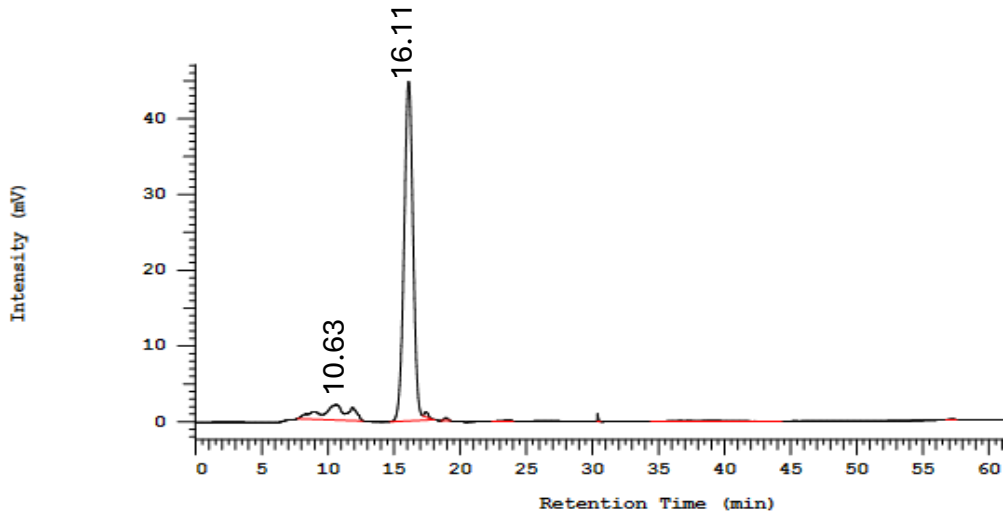


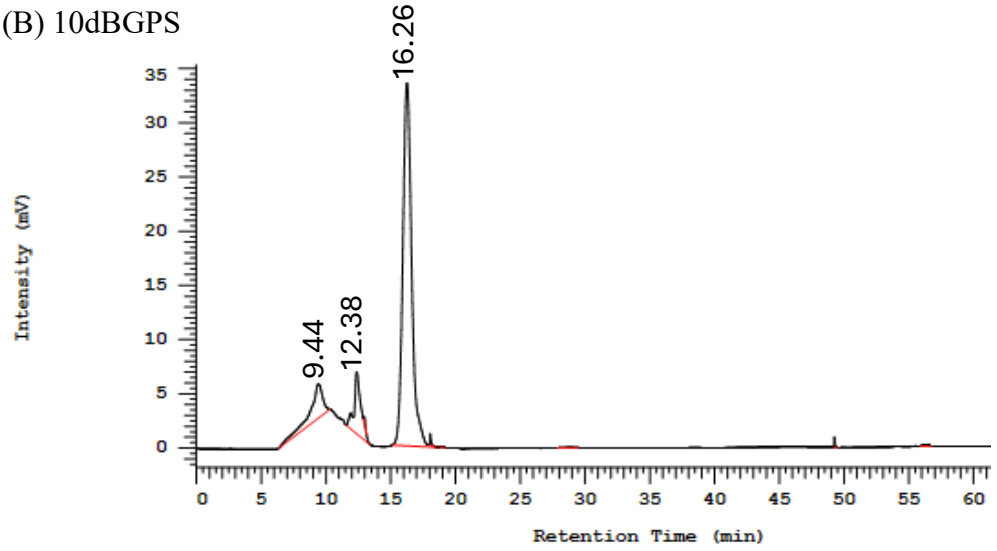
Figure S3. A calibration curve of polysaccharide standards using an HPSEC column. The column (300 × 8 mm) was eluted with deionized water at a flow rate of 0.7 ml/min. The standard kit is Pullulan.

Fig. S4

(A) 0dRGPS



(B) 10dBGPS



(C) 17dBGPS

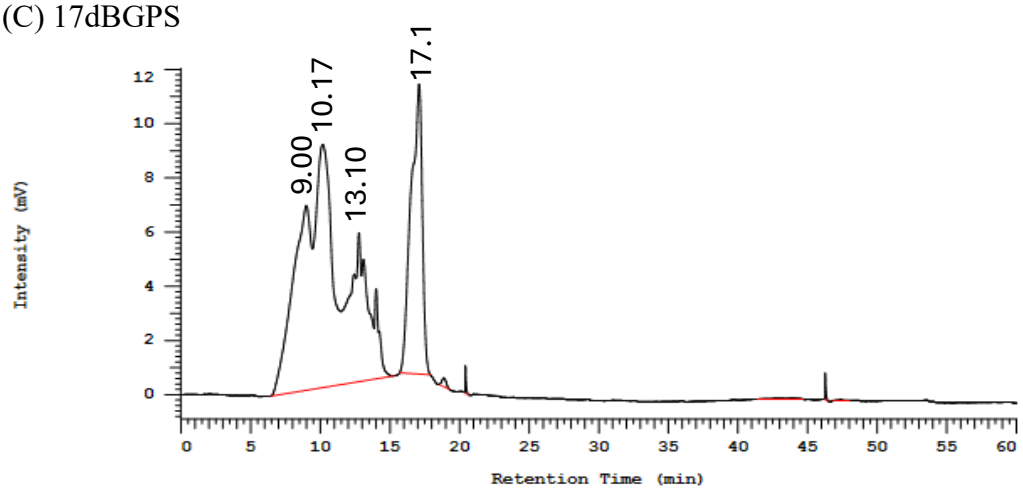
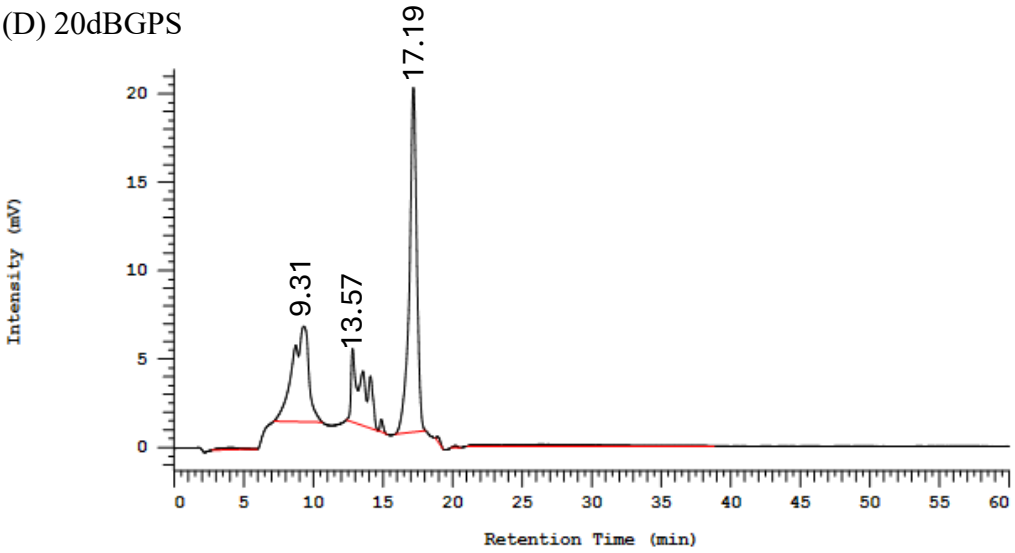
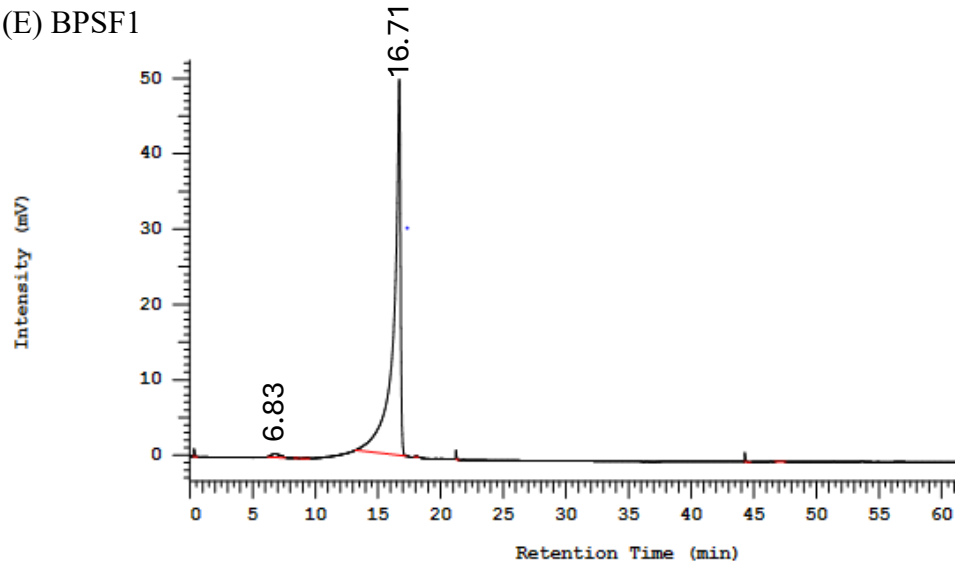


Fig. S4

(D) 20dBGPS



(E) BPSF1



(F) BPSF2

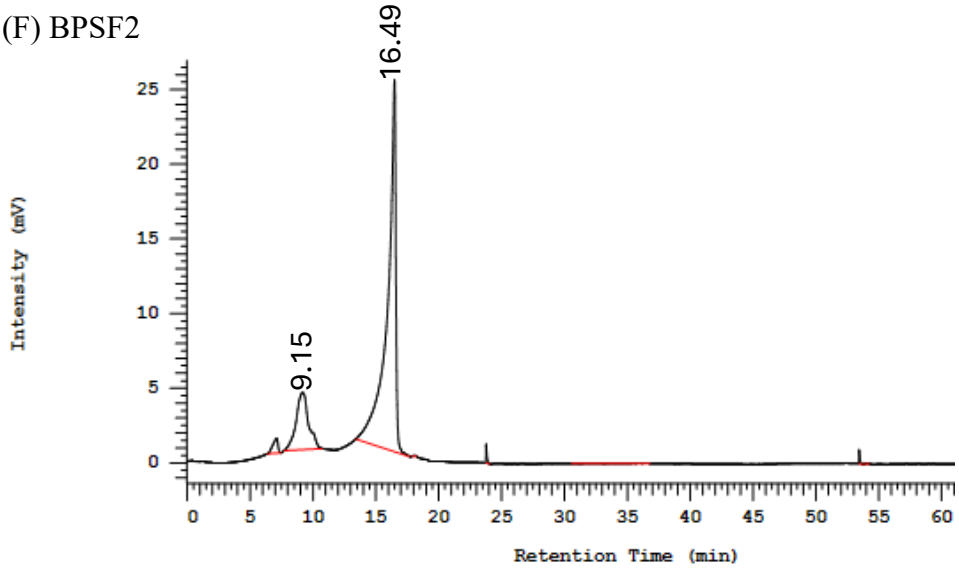


Fig. S4

(G) BPSF3

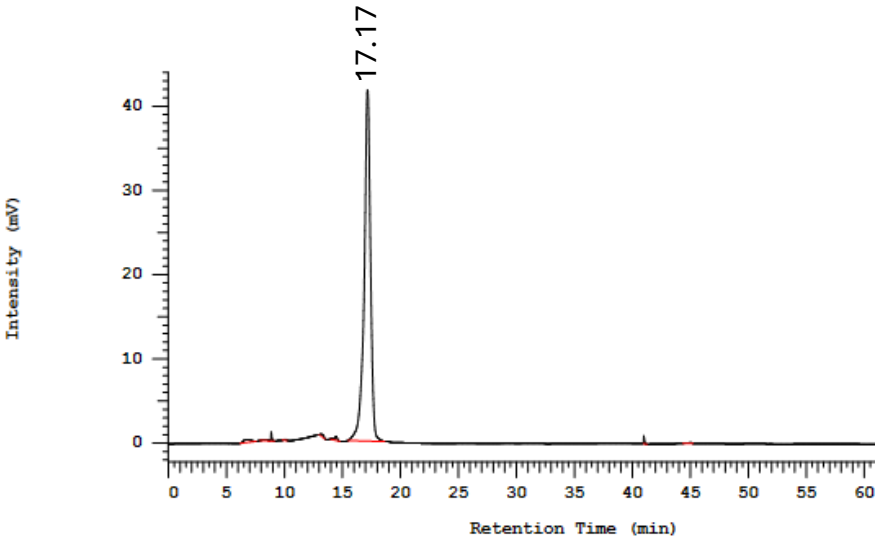


Figure S4. HPLC chromatograms of (A) 0dRGPS, (B) 10dBGPS, (C) 17dBGPS, (D) 20dBGPS, (E) BPSF1, (F) BPSF2, and (G) BPSF3 using an HPSEC column. All samples were dissolved in deionized water. The column (300 × 8 mm) was eluted with deionized water at a flow rate of 0.7 ml/min. Polysaccharides isolated from black garlic aged for 0, 10, 17, and 20 days (0dRGPS, 10dBGPS, 17dBGPS, 20dBGPS) and fractions of polysaccharides isolated from black garlic aged for 20 days (BPSF1, BPSF2, BPSF3) were analyzed.