

Supplementary Fig. S1. Evaluation of serum galectin levels in patients with AAV, SLE, and HC.

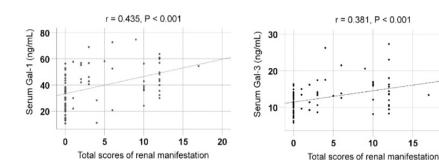
Serum Gal-1 and Gal-3 levels were significantly higher in patients with AAV compared to those with SLE and HC. In addition, serum Gal-9 levels in patients with AAV and SLE was increased compared to HC.

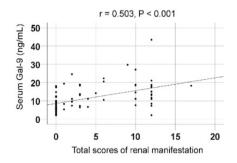
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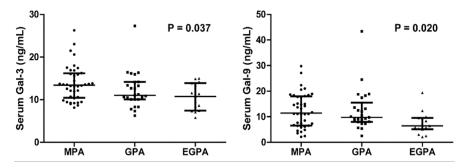
Data are presented as median and the error bars indicate interquartile ranges.

AAV: ANCA-associated vasculitis; SLE: systemic lupus erythematosus; HC: healthy controls; Gal: galectin.





Supplementary Fig. S2. Correlation of galectins with total scores of renal manifestations according to BVAS score. Serum levels of Gal-1, Gal-3, and Gal-9 was significantly correlated with total scores of renal manifestations according to BVAS score. Gal: galectin; BVAS: Birmingham vasculitis activity score.



Supplementary Fig. S3. Comparison of serum Gal-3 and Gal-9 level according to AAV subtypes. Among AAV subtypes, serum Gal-3 and Gal-9 levels were significantly lower in patients with EGPA compared to those with MPA and GPA.

Data are presented as median and the error bars indicate interquartile ranges.

Gal: galectin; AAV: ANCA-associated vasculitis; ANCA: antineutrophil cytoplasmic antibody; EGPA: eosinophilic granulomatosis with polyangiitis; MPA: microscopic polyangiitis; GPA: granulomatosis with polyangiitis

Gal-9 in AAV / T. Yoon et al.

Supplementary Table S1. Correlation between serum levels of galectins and cytokines.

	Galectin-1	Galectin-3	Galectin-9	Interleukin-6	Interleukin-8
Galectin-1		0.284 (0.011)	0.571 (<0.001)	-0.042 (0.714)	0.278 (0.014)
Galectin-3			0.607 (<0.001)	0.053 (0.644)	0.105 (0.361)
Galectin-9				0.123 (0.277)	0.151 (0.186)
Interleukin-6					-0.014 (0.904)
Interleukin-8					

Values indicate correlation coefficients (p-values).

AAV: ANCA-associated vasculitis; ANCA: antineutrophil cytoplasmic antibody.

Supplementary Table S2. Logistic regression analysis based on high activity in patients with MPA and GPA (N = 65).

Variables	Univariable		Multivariable (continuous variables)			Multivariable (Cut-off of serum galectin-3 and -9)			
	OR	95% CI	p-value	OR	95% CI	p-valuee	OR	95% CI	p-value
Age	1.015	0.976, 1.055	0.456						
Male sex	0.783	0.290, 2.113	0.629						
MPO-ANCA (or P-ANCA) positivity	2.288	0.703, 7.445	0.169						
PR3-ANCA (or C-ANCA) positivity	1.062	0.218, 5.187	0.940						
ESR	1.019	1.005, 1.034	0.010	1.020	0.996, 1.045	0.105			
CRP	1.014	1.001, 1.027	0.038	1.002	0.983, 1.022	0.827			
Galectin-1	1.003	0.970, 1.037	0.852						
Galectin-3	1.152	1.008, 1.137	0.037	1.138	0.965, 1.341	0.124			
Galectin-9	1.117	1.024, 1.218	0.013	1.082	0.973, 1.204	0.145			
ESR	4.888	1.656, 14.482	0.004				1.024	0.998, 1.052	0.073
CRP	7.500	2.454, 22.926	< 0.001				1.000	0.980, 1.021	0.966
Galectin-3 ≥13.53 ng/mL	1.152	1.008, 1.137	0.037				2.538	0.708, 9.096	0.153
Galectin-9 ≥10.28 ng/mL	7.543	2.333, 24.391	0.001				7.301	1.893, 28.150	0.004

MPA: microscopic polyangiitis; GPA: granulomatosis with polyangiitis; MPO: myeloperoxidase; ANCA: antineutrophil cytoplasmic antibody; P: perinuclear; PR3: proteinase 3; C: cytoplasmic; ESR: erythrocyte sedimentation rate; CRP: C-reactive protein.