

Supplemental Table 1. Summary of UNC-Kidney Center Data

Population	Assay	Reactive	Total Screened	% Total
ANCA				
	ELISA rLAMP2 (produced in ¥HEK cells)	22	103	21.3%
	ELISA LAMP2-peptide * (HGTVTYNGS)	4	101	3.8%
	**Positive on > 1 ELISA	4	99	3.0%
	Western Blot	0	17	0.0%
	IF rLAMP in HEK cells	0	83	0.0%
	IF rLAMP in CHO-Idl-D cells	0	84	0.0%
UTI				
	ELISA rLAMP2 (produced in HEK cells)	13	105	12.4%
	ELISA LAMP2-peptide	4	104	3.8%
	Positive on > 1 ELISA	4	104	3.8 %
	IF rLAMP in CHO-Idl-D cells	0	5	0.0%
Totals positives				
ANCA		23	104	22.1%
UTI		16	105	15.0%

¥Human Embryonic Kidney cells

*peptide sequence published by Kain *et.al.*

**3 ANCA samples reactive to more than 1 ELISA were during new onset of disease

Supplemental Table 2. Characteristics of NC Patient Cohort with LAMP-2 Reactivity

Categories compared	Reactivity against recombinant LAMP-2		Reactivity against LAMP-2 peptide (P ₄₁₋₄₉)	
	Percent Positive (%)	<i>P</i> value*	Percent Positive (%)	<i>P</i> value*
BVAS vs LAMP-2 reactive		0.1465		1.0000
Active	28.9		4.7	
Remission	15.8		3.5	
ANCA Titer vs LAMP-2 reactive [‡]				
PR3 ANCA	22.0	0.2323		
MPO ANCA	24.4	0.4129		
ANCA phenotype [†] vs LAMP-2 reactive		1.0000		1.0000
c- ANCA seropositive	23.1		3.8	
p- ANCA seropositive	21.7		2.3	
Disease type vs LAMP-2 reactive		0.4680		0.13
Renal Limited	13.3		0.0	
Microscopic polyangiitis	22.7		7.5	
Granulomatosis	20.0		2.6	
Others [§]	50.0		0.0	
Disease Status vs LAMP-2 reactive		0.0842		0.0003
New Onset	40.0		36.0	
Ongoing Disease	18.2		0.0	
Male vs. Female for number of positives				
Positive ANCA patients	10.2 vs 31.5	0.0148	6.0 vs 2.1	0.6193
Positive UTI patients	15.0 vs 11.8	0.7097	0.0 vs 21.0	0.0008

% Positive = percent of individuals with OD values 2SD above the mean of healthy controls

**P* values were calculated by Fisher's Exact Test

‡ *P* value was calculated using Wilcoxin two sample test

[†] Three patients from the test cohort were excluded for this analysis due to insufficient serotype data.

[§] Four patients were placed in this category due to insufficient clinical data.

Supplemental Table 3. Analysis of Variance results for studies at Massachusetts General Hospital.

Y Variable Range = \$E\$1:\$E\$403

Factor Range = \$A\$1:\$A\$403

Descriptive Statistics

Group	Mean	Std Dev.	Std Err	N
BBS (blood bank sera)	3.717	11.126	1.311	72
ANCA Negative	6.294	15.503	1.520	104
MPO-ANCA	4.555	11.048	1.017	118
PR3-ANCA	3.640	8.163	0.785	108

Analysis of Variance for Y=LAMP
Titer

Source	Type III SS	Df	Mean Sq.	F	Prob.
Model	454.444	3	151.481	1.097	0.350
Error	54956.126	398	138.081		
Total	55410.570	401			

Post Hoc tests for Factor = Sample
Groups

Test	Group 1	Group 2	Mean Diff.	SE	q	Prob.
Tukey	BBS	ANCA				
		Negative	-2.578	1.274	2.023	0.480
		MPO	-0.839	1.243	0.675	0.964
	ANCA Negative	PR3	0.077	1.264	0.061	1.000
		MPO	1.739	1.118	1.556	0.689
		PR3	2.654	1.142	2.325	0.354
Scheffe	BBS	PR3	0.915	1.107	0.827	0.937
	ANCA Negative	ANCA				
		Negative	-2.578	1.802	1.431	0.563
		MPO	-0.839	1.757	0.477	0.973
	MPO	PR3	0.077	1.788	0.043	1.000
		MPO	1.739	1.580	1.100	0.751
Student-Newman-Keuls	BBS	PR3	2.654	1.614	1.644	0.441
		PR3	0.915	1.565	0.585	0.952
	ANCA Negative	ANCA				
		Negative	-2.578	1.274	2.023	0.325
		MPO	-0.839	1.243	0.675	0.633
	MPO	PR3	0.077	1.264	0.061	0.966