

## Supplementary

**Table S1** Summary of interobserver variability metrics of CoV, ICC and CC for ADC measurement by ROI and TLCO

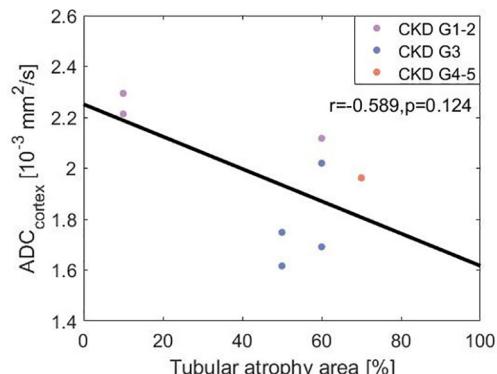
Variables	CoV (%)	ICC	CC
<b>ROI</b>			
L $\text{ADC}_{\text{Cortex}}$	3.18	0.933	0.934
L $\text{ADC}_{\text{Medulla}}$	4.10	0.866	0.872
L $\Delta\text{ADC}$	–	0.564	0.583
R $\text{ADC}_{\text{Cortex}}$	4.61	0.827	0.833
R $\text{ADC}_{\text{Medulla}}$	4.79	0.835	0.845
R $\Delta\text{ADC}$	–	0.455	0.455
L+R $\text{ADC}_{\text{Cortex}}$	3.13	0.917	0.920
L+R $\text{ADC}_{\text{Medulla}}$	3.45	0.894	0.902
L+R $\Delta\text{ADC}$	–	0.537	0.542
<b>TLCO</b>			
L $\text{ADC}_{\text{Cortex}}$	1.29	0.990	0.991
L $\text{ADC}_{\text{Medulla}}$	1.51	0.985	0.986
L $\Delta\text{ADC}$	–	0.882	0.899
R $\text{ADC}_{\text{Cortex}}$	1.92	0.979	0.981
R $\text{ADC}_{\text{Medulla}}$	1.95	0.970	0.975
R $\Delta\text{ADC}$	–	0.756	0.785
L+R $\text{ADC}_{\text{Cortex}}$	1.31	0.990	0.992
L+R $\text{ADC}_{\text{Medulla}}$	1.32	0.985	0.988
L+R $\Delta\text{ADC}$	–	0.850	0.886

ADC, apparent diffusion coefficient; L, ADC in the left kidney; R, ADC in the right kidney; L+R, ADC of left and right kidney;  $\text{ADC}_{\text{cortex}}$ , ADC in the cortex;  $\text{ADC}_{\text{medulla}}$ , ADC in the medulla; ROI, region of interest; TLCO, twelve-layer concentric objects; CoV, coefficient of variance; ICC, intraclass correlation coefficient; CC, Pearson's correlation coefficient.

**Table S2** Comparison of model performance using clinical biomarkers of eGFR and UACR versus ADC only

Variables	C-Index (95% CI)	P value <sup>a</sup>
eGFR + UACR	0.748 (0.666–0.830)	–
$\text{ADC}_{\text{Cortex}}$		
TLCO	0.669 (0.588–0.750)	<0.001*
ROI	0.585 (0.486–0.685)	<0.001*
$\text{ADC}_{\text{Medulla}}$		
TLCO	0.575 (0.480–0.674)	<0.001*
ROI	0.483 (0.382–0.584)	<0.001*
$\Delta\text{ADC}$		
TLCO	0.572 (0.473–0.671)	<0.001*
ROI	0.616 (0.523–0.708)	<0.001*

<sup>a</sup>, compared with Model 1 (eGFR + UACR); \*, P<0.05. ADC, apparent diffusion coefficient;  $\text{ADC}_{\text{cortex}}$ , ADC in the cortex;  $\text{ADC}_{\text{medulla}}$ , ADC in the medulla; eGFR, estimated glomerular filtration rate; UACR, urine albumin-creatinine ratio; CI, confidence interval; TLCO, twelve-layer concentric objects; ROI, region of interest.



**Figure S1** Correlation analysis between  $\text{ADC}_{\text{cortex}}$  and tubular atrophy area. ADC, apparent diffusion coefficient;  $\text{ADC}_{\text{cortex}}$ , ADC in the cortex; CKD, chronic kidney disease.