BioVendor Group®

Kidney Injury Markers

Tubular injury, glomerular filtration and tubular integrity

FOLLOW US

BIOVENDOR.GROUP

General overview

Complementary biomarkers provide a clearer picture of the underlying causes of kidney disease than creatinine alone. Cystatin C, combined with creatinine, improves GFR estimation, particularly when creatinine is less reliable. NGAL has been investigated for early identification and risk assessment of AKI, including after cardiac surgery. Urinary clusterin contributes to the assessment of drug-induced tubular injury in clinical development. Circulating uromodulin provides emerging insights into tubular integrity and kidney function in CKD and transplant populations. These biomarkers have different levels of clinical validation and complement clinical assessment, urine output and albuminuria testing.

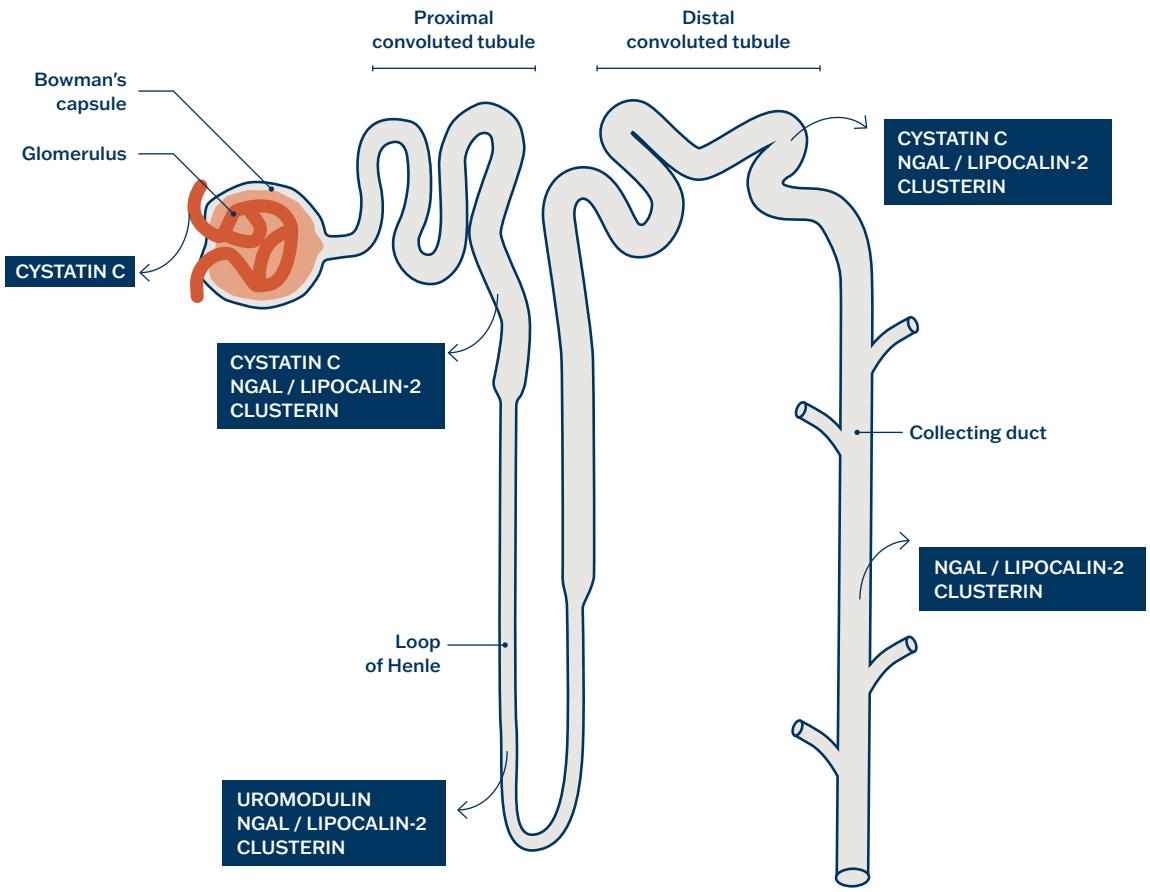

Figure: Nephron regions associated with selected biomarkers of kidney function and injury: cystatin C, NGAL (lipocalin-2), clusterin, and uromodulin.

Build a broader renal biomarker profile

Clusterin

Tubular injury & repair | Clinical research / nephrotoxicity
Investigate urinary clusterin as a marker of tubular stress and injury or repair, particularly in drug-induced kidney injury research. Explore injury and recovery in longitudinal studies.

Human ELISA | RD194034200R

NGAL / Lipocalin-2

Acute tubular injury | Clinical research / AKI
Study early AKI-associated changes, including after cardiac surgery and in critical-care cohorts. Interpret alongside tubular injury and inflammatory status.

Human ELISA | RD191102200R

Cystatin C

Glomerular filtration | Established filtration marker
Assess glomerular filtration using circulating cystatin C. Combined creatinine-cystatin C eGFR improves GFR estimation. Urinary cystatin C provides a different perspective on proximal tubular handling.

Human ELISA | RD191009100

Uromodulin

Tubular integrity | Emerging clinical applications
Explore serum uromodulin as a marker associated with tubular integrity and kidney function in CKD and transplant cohorts. Serum and urinary results reflect different biological compartments.

Human ELISA | RD191163200R

Marker	Cat. No.	Renal sample types	Status
Clusterin	RD194034200R	Serum, plasma, urine	RUO
NGAL / Lipocalin-2	RD191102200R	Serum, EDTA plasma, urine	RUO
Cystatin C	RD191009100	Serum, plasma, urine	EU: CE-IVD
Uromodulin	RD191163200R	Serum, plasma, urine	EU: CE-IVD

Extend your research panel

1 Glomerular injury & filtration

Biomarker	Biological relevance
Urinary albumin	Filtration barrier permeability
Isthmin-1	Podocyte injury

2 Tubular stress & integrity

Biomarker	Biological relevance
KIM-1	Proximal tubular injury
Urinary L-FABP	Hypoxic and oxidative stress
IGFBP-7 x TIMP-2	Short-term AKI risk
Urinary β2-microglobulin	Impaired tubular reabsorption

3 Fibrosis & inflammatory remodeling

Biomarker	Biological relevance
CTGF / CCN2	Profibrotic signaling
Osteopontin	Inflammation and remodeling
S100A12	Neutrophil-driven inflammation
sRAGE	AGE–RAGE pathway
UTI (urinary trypsin inhibitor)	Inflammation-associated tubular damage

4 Hormonal and mineral pathways

Biomarker	Biological relevance
Renin activity	RAAS activation
Angiotensin II	Vascular and glomerular regulation
Aldosterone	Sodium and potassium balance
ACE2	Counter-regulatory RAAS pathway
FGF-23	Phosphate and vitamin D metabolism
Fetuin-A	Inhibition of ectopic calcification
Erythropoietin	Erythropoiesis and renal anemia
Proguanylin	Fluid and electrolyte regulation

For more information, please contact us



Sales Team
Erik Nomilner
Sales Manager
erik.nomilner@biovendor.com



Product support team
Michal Karpíšek
Operational Product Manager
michal.karpisek@biovendor.com

MANUFACTURER

BioVendor Research & Diagnostic Products
Karasek 1767/1, 621 00 Brno
Czech Republic
info@biovendor.com
www.biovendor.com

BRIDGING SCIENCE AND DIAGNOSTICS
BIOVENDOR.GROUP