

RENAL DISEASE

Immunoassays

HUMAN LIPOCALIN-2/NGAL ELISA

Cat. No.: RD191102200R

RUO

Intended use

The RD191102200R Human Lipocalin-2/NGAL ELISA is a sandwich enzyme immunoassay for the quantitative measurement of human lipocalin-2 in serum, plasma and urine samples.

- The total assay time is less than 3.5 hours
- The kit measures lipocalin-2 in serum, plasma (EDTA), urine samples and stool extract
- Assay format is 96 wells
- Quality Controls are human serum based. No animal sera are used
- Standard is recombinant protein based
- Components of the kit are provided ready to use, concentrated or lyophilized

Clinical application

- Renal injury
- Angiogenesis
- Oncology
- Diabetes mellitus
- Metabolic syndrome

Immunoassays

Test principle

In the BioVendor Human Lipocalin-2/NGAL ELISA, standards, quality controls and samples are incubated in microplate wells pre-coated with polyclonal anti-human lipocalin-2 antibody. After one hour incubation and washing, biotin labelled polyclonal anti-human lipocalin-2 antibody is added and incubated with captured lipocalin-2 for one hour. After another washing, streptavidin-HRP conjugate is added. After 30 minutes incubation and the last washing step, the remaining

conjugate is allowed to react with the substrate solution (TMB). The reaction is stopped by addition of acidic solution and absorbance of the resulting yellow product is measured. The absorbance is proportional to the concentration of lipocalin-2. A standard curve is constructed by plotting absorbance values against concentrations of standards, and concentrations of unknown samples are determined using this standard curve.

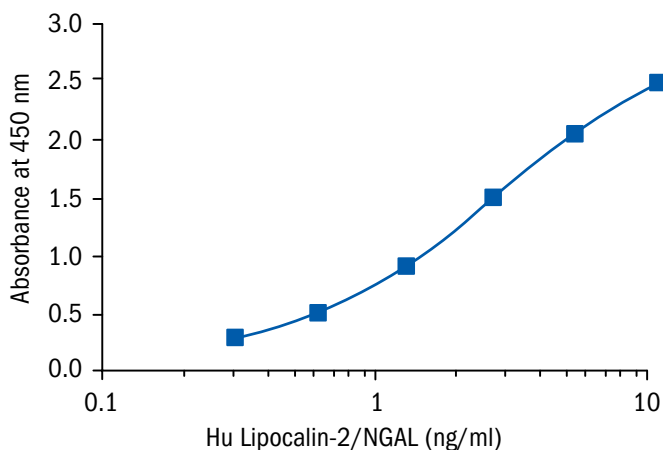
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Assay format	Sandwich ELISA, Biotin-labelled antibody, 96 wells/kit
Samples	Serum, Plasma (EDTA), Urine samples and Stool extract
Controls	QC-Low, QC-High
Standards	0.3 to 10 ng/ml
Limit of detection	Limit of Detection (LOD) (defined as concentration of analyte giving absorbance higher than mean absorbance of blank* plus three standard deviations of the absorbance of blank: $A_{blank} + 3 \times SD_{blank}$) is calculated from the real Lipocalin-2 values in wells and is 0.02 ng/ml

Summary of protocol

- Reconstitute QCs and Master Standard and prepare set of Standards
- Dilute samples 30×
- Add 100 µl Standards, QCs and samples
- Incubate at RT for 1 hour/300 rpm
- Wash plate 3 times
- Add 100 µl Biotin Labelled Antibody
- Incubate at RT for 1 hour/300 rpm
- Wash plate 3 times
- Add 100 µl Streptavidin HRP Conjugate
- Incubate at RT for 30 minutes/300 rpm
- Wash plate 3 times
- Add 100 µl Substrate Solution
- Incubate at RT for 10 min
- Add 100 µl Stop Solution
- Read absorbance and calculate results



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