



Mouse neutrophil gelatinase-associated lipocalin,NGAL ELISA Kit

Product Code	CSB-E09410m
Abbreviation	LCN2
Protein Biological Process 1	Apoptosis/Autophagy
Target Name	lipocalin 2
Uniprot No.	P11672
Alias	24p3, MSFI, NGAL, OTTHUMP00000022240 migration-stimulating factor inhibitor neutrophil gelatinase-associated lipocalin oncogene 24p3 siderocalin
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Apoptosis
Sample Types	serum, plasma, tissue homogenates, urine
Detection Range	12.5 pg/mL-800 pg/mL
Sensitivity	3.12 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	Lcn2
Tag Info	quantitative
Protein Description	Competitive

Description

This mouse NGAL ELISA kit is suitable for the quantitative determination of mouse NGAL in the serum, plasma, tissue homogenates, or urine. It employs the competitive inhibition enzyme immunoassay technique. The microtiter plate has been pre-coated with NGAL. Standards or samples are added to the appropriate microtiter plate wells with HRP-conjugated antibody preparation specific for NGAL. The competitive inhibition reaction is launched between pre-coated NGAL and NGAL in samples. A substrate solution is added to the wells and the color develops oppositely to the amount of NGAL in the samples. The color development is stopped and the intensity of the color is measured.



NGAL, also called LCN2, is released by neutrophils at sites of infection and inflammation to participate in the antibacterial defense through iron sequestration. NGAL is also responsible for iron delivery to the cytoplasm where it is accumulated and activates or inhibits iron-responsive genes. Iron unloading depends on the cycling of NGAL through acidic endosomes. Devireddy LR et al have shown that NGAL is also involved in apoptosis-dependent deprivation of trophic factors. NGAL is considered the biochemical gold standard for the early diagnosis of acute kidney injury because it is rapidly released after tubular damage.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of mouse NGAL in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
	Average %	105
1:200	Range %	101-108
	Average %	97
1:400	Range %	95-99
	Average %	95
1:800	Range %	90-99
	Average %	90
1:1600	Range %	84-96

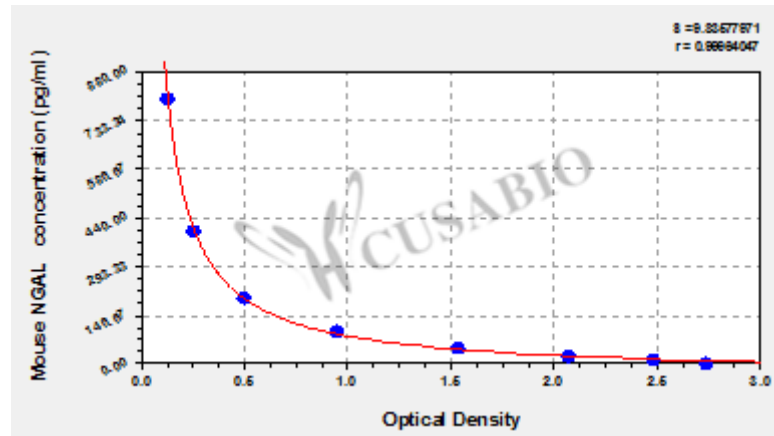
Recovery

The recovery of mouse NGAL spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	90	87-93
EDTA plasma (n=4)	97	92-102

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average
800	0.135	0.141	0.138
400	0.258	0.265	0.262
200	0.501	0.525	0.513
100	0.955	0.985	0.970
50	1.545	1.574	1.560
25	2.088	2.122	2.105
12.5	2.457	2.588	2.523
0	2.863	2.698	2.781