

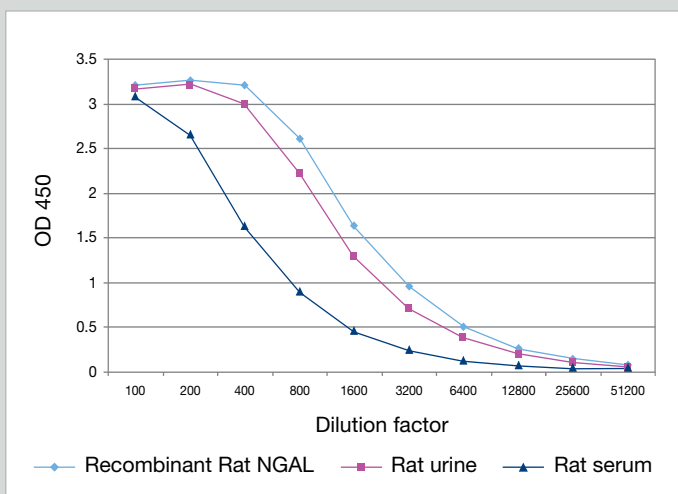
MONOCLONAL ANTIBODIES TO RAT NGAL

AntibodyShop has released two monoclonal antibodies specific for rat NGAL (neutrophil gelatinase-associated lipocalin). The two antibodies can be used to form a sandwich ELISA pair; hence one of the antibodies is also offered in a biotinylated form for detection.

Cat. No.	Specificity	Format	Applications		
			ELISA	WB	IHC
ABS 039-08	Anti NGAL (rat, neutrophil gelatinase-associated lipocalin)	1 mg/mL, purified	+	ND	ND
ABS 039-32	Anti NGAL (rat, neutrophil gelatinase-associated lipocalin)	1 mg/mL, purified	+	ND	ND
ABS 039-32B	Anti NGAL (rat, neutrophil gelatinase-associated lipocalin)	1 mg/mL, biotinylated	+	ND	ND

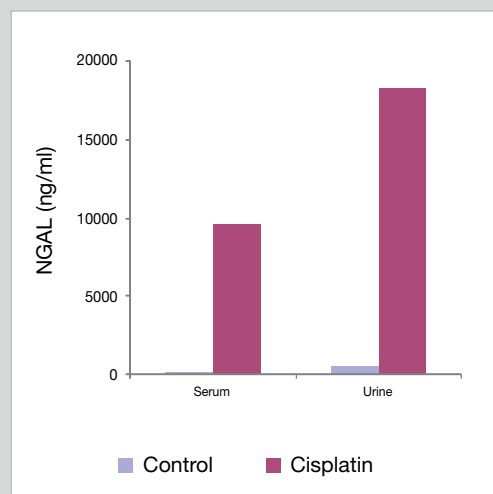
NGAL has been recognized to be an early marker for renal injury in humans, and several publications show that NGAL could also serve as a marker of nephrotoxicity in mouse and rat models.

Rat NGAL, so called because it is the ortholog of human NGAL, is also called rat lipocalin 2, 25-kDa α_2 -microglobulin-related protein or neu-related lipocalin. The name NGAL is perhaps less appropriate to the rat protein than to human NGAL, as its relation to gelatinase B (matrix metalloproteinase-9) is less well established in rat than in man.



Measuring rat NGAL in ELISA

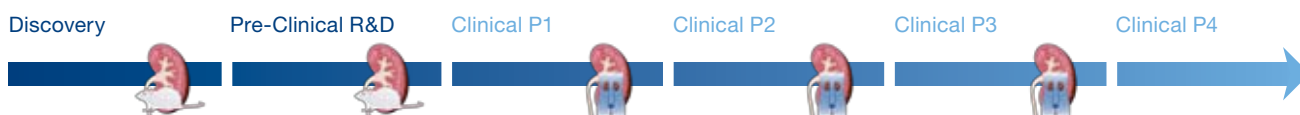
Sandwich ELISA with ABS 039-08 and ABS 039-32B showing parallelism between dilution series of recombinant rat NGAL, rat urine and rat serum.



Nephrotoxicity study

NGAL concentrations in rat serum and urine in controls and after nephrotoxic injury with 10 mg/kg cisplatin intraperitoneally.

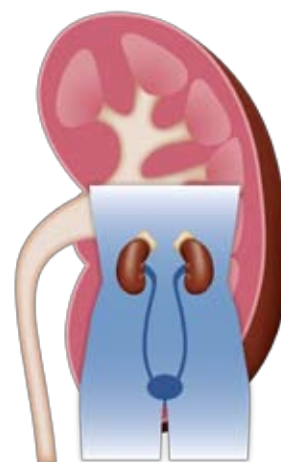
Use of NGAL products in nephrotoxicity studies



The antibodies to rat NGAL are intended for use in research and preclinical studies to enable scientists to detect rises in rat NGAL concentrations and hence the extent of renal injury, including nephrotoxic injury. The applicability of AntibodyShop's rat NGAL product range extends from basic research or drug discovery to preclinical toxicity testing. The NGAL Rapid ELISA Kit (KIT 037) for human NGAL is CE-marked in the EU and registered in Canada for *in vitro* diagnostics. The kit can be used to detect nephrotoxicity in the relevant phases of clinical trials.

Related products - human NGAL kits and monoclonal antibodies

Cat. No.	Specificity	Format
KIT 036	Anti NGAL (human)	ELISA kit, up to 40 samples in duplicate
KIT 037	Anti NGAL (human)	ELISA kit, up to 42 samples in duplicate
HYB 211-01	Anti NGAL (human)	Mouse monoclonal antibody, 1 mg/mL, purified
HYB 211-01B	Anti NGAL (human)	Mouse monoclonal antibody, 1 mg/mL, biotinylated
HYB 211-02	Anti NGAL (human)	Mouse monoclonal antibody, 1 mg/mL, purified
HYB 211-02B	Anti NGAL (human)	Mouse monoclonal antibody, 1 mg/mL, biotinylated
HYB 211-05	Anti NGAL (human)	Mouse monoclonal antibody, 1 mg/mL, purified



References

NGAL in rat models of nephrotoxicity

Amin RP *et al.* (2004) Identification of putative gene based markers of renal toxicity. *Environ Health Perspect* 112:465-479.

NGAL in rat models of ischemia

Matthaeus T *et al.* (2001) Co-regulation of neutrophil gelatinase-associated lipocalin and matrix metalloproteinase-9 in the posts ischemic rat kidney. *J Am Soc Nephrol* 12:787A.

Mishra J *et al.* (2003) Identification of neutrophil gelatinase-associated lipocalin as a novel early urinary biomarker for ischemic renal injury. *J Am Soc Nephrol* 14:2534-2543.

Rat NGAL background

Triebel S *et al.* (1992) A 25 kDa α_2 -microglobulin-related protein is a component of the 125 kDa form of human gelatinase. *FEBS Lett* 314:386-388.

Kjeldsen L *et al.* (2000) Human neutrophil gelatinase-associated lipocalin and homologous proteins in rat and mouse. *Biochim Biophys Acta* 1482:272-283.

For more information, please contact BioPorto Diagnostics or your local BioPorto Diagnostics distributor



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