

# The study on the protective mechanism of NGAL to the rats ischemia/reperfusion renal injury

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**Objective** To investigate the protective effect and mechanism of NGAL on rats ischemia/reperfusion renal injury.

**Methods** Renal I/R models of rats were established , rats were randomly divided into 3 groups, the pathological changes of kidney tissue were investigated by hemotoxylin-eosin staining; renal tubular epithelial cell apoptosis was detected by TUNEL method; After 24 hours of reperfusion, blood samples were harvested from inferior vena cava. The Scr and Bun were measured on automatic biochemistry analyzer. The expressions of Bax、 and CC3 were detected by immunohistochemistry expression of Fas、 Bcl-2 were measured by Western Blot.

## Results

group	Scr ( umol/L )	Bun ( mmol/L)	group	I/R	NAGL	group	CC3	Bax
I/R	121.857±17.151*	28.557±6.434*	FAS	6.84±2.34	2.34± 0.51*	I/R	7.291±1.059	15.456±1.955*
NAGL	63.400±11.908*#	14.840±2.868*#	bcl-2	5.30 ±1.48	6.91±1.64**	NAGL	3.17±0.321*	7.440±1.640**

**Conclusions** NGAL can protect renal tubular epithelial cells in renal IRI, may be related to decrease cell apoptosis and adjust protein expression by apoptosis-regulating cytokines, thus protect renal from I/R injury.

**References** Sabbahy ME. Ischemic kidney injury and mechanisms of tissue repair. *Wiley Interdiscip Rev Syst Biol Med* , 2011

