

## PRODUCT SPECIFICATION

PRODUCT NAME Recombinant human monomer NGAL (rhNGAL)

Recombinant protein

PRODUCT NO. SP001RA

PRESENTATON Production: E. coli

Source: Full length amino acid sequence Content: 1 mL, 1000 pg/mL +/-15%

Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.14 M NaCl, 0.5% BSA; 0.5%

Tween 20; 0.0016% Phenol red; 0.1% Proclin 950

Storage: 2-8°C

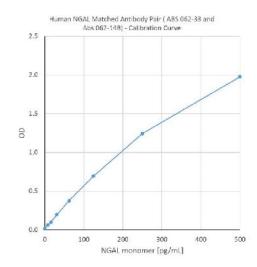
PREPARATION This product is purified full length recombinant protein without any tags, produced from

E. coli

APPLICATION ELISA

This antigen is well suited as a standard in human NGAL quantifying assays, such as e.g. ELISA.

The figure illustrates the calibration curve of a sandwich assay with ABS 062-33 as the capture antibody and ABS 062-14B as the biotinylated detection antibody (1).



**BACKGROUND** 

Neutrophil gelatinase-associated lipocalin (NGAL; also called lipocalin 2, siderocalin and neutrophil lipocalin) is a member of the lipocalin family of proteins which bind and transport small lipophilic molecules. NGAL is released by activated neutrophils and occurs as 25-kDa glycosylated single protein chain monomers, which form dimers and small amounts of higher oligomers, as well as complexes with matrix metalloproteinase 9 (MMP-9; gelatinase B) (2). Low level expression of NGAL in a variety of epithelia may be increased in inflammation or cancers (3). Expression of NGAL in the kidney is dramatically increased by acute kidney injury.

REFERENCES

- 1. Bangert et al (2013) The Monomer is the Major Form of NGAL in Urine and Plasma in Severe Sepsis J Am Soc Nephrol 24: 368A
- 2. Kjeldsen L et al (1993) Isolation and primary structure of NGAL, a novel protein associated with human neutrophil gelatinase. J Biol Chem 268:10425-10432.
- 3. Nielsen BS et al (1996) Induction of NGAL synthesis in epithelial cells of human colorectal neoplasia and inflammatory bowel diseases. Gut 38:414-420

## CONDITIONS

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