

RP00022

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# Recombinant Human Lipocalin-2/NGAL/LCN2 Protein

Catalog No.: RP00022

Recombinant

## Sequence Information

### Species Gene ID Swiss Prot

Baculovirus- 3934 P80188  
Infected Sf9  
Cells

### Tags

No tag

### Synonyms

24p3; MSFI; NGAL;  
p25;LCN2;MSFI;NGAL;p25

## Product Information

### Source Purification

Baculovirus- > 97% by SDS-  
Infected Sf9 Cells PAGE.

### Endotoxin

< 1.0 EU/μg of the protein by LAL  
method.

### Formulation

Lyophilized from a 0.22 μm filtered  
solution of PBS, pH 7.4. Contact us for  
customized product form or  
formulation.

### Reconstitution

Centrifuge the vial before opening.  
Reconstitute to a concentration of  
0.1-0.5 mg/mL in sterile distilled water.  
Avoid vortex or vigorously pipetting  
the protein. For long term storage, it is  
recommended to add a carrier protein  
or stabilizer (e.g. 0.1% BSA, 5% HSA,  
10% FBS or 5% Trehalose), and aliquot  
the reconstituted protein solution to  
minimize free-thaw cycles.

## Background

Lipocalin-2 (LCN2), also known as neutrophil gelatinase-associated lipocalin (NGAL), is a 25 kDa protein belonging to the lipocalin superfamily. Members of this family transport small hydrophobic molecules such as lipids, steroid hormones and retinoids. The protein is a neutrophil gelatinase-associated lipocalin and plays a role in innate immunity by limiting bacterial growth as a result of sequestering iron-containing siderophores. The presence of this protein in blood and urine is an early biomarker of acute kidney injury. This protein is thought to be involved in multiple cellular processes, including maintenance of skin homeostasis, and suppression of invasiveness and metastasis. Mice lacking this gene are more susceptible to bacterial infection than wild type mice.

## Basic Information

### Description

Recombinant Human Lipocalin-2/NGAL/LCN2 Protein is produced by insect cell-baculovirus expression system. The target protein is expressed with sequence (Gln21-Gly198) of human LCN2/NGAL (Accession #NP\_005555.2).

### Bio-Activity

Measured by its ability to bind Iron(III) dihydroxybenzoic acid [Fe(DHBA)<sub>3</sub>]. The binding of Fe(DHBA)<sub>3</sub> results in the quenching of Trp fluorescence in recombinant human Lipocalin-2. Recombinant human Lipocalin-2 can bind >10625 μM of Fe(DHBA)<sub>3</sub>.

### Storage

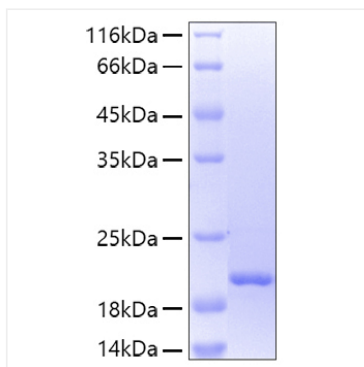
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.  
Avoid repeated freeze/thaw cycles.

## Contact

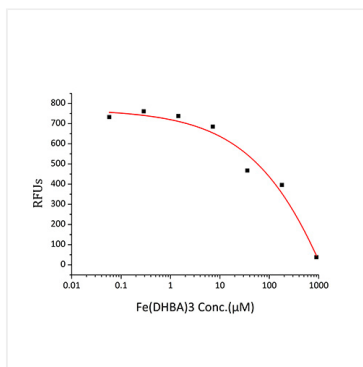


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## Validation Data



Recombinant Human Lipocalin-2/NGAL/LCN2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



The binding of Fe(DHBA)3 results in the quenching of Trp fluorescence in recombinant human Lipocalin-2. Recombinant human Lipocalin-2 can bind  $>10625 \mu\text{M}$  of Fe(DHBA)3.