

Recombinant Human Lipocalin-2/NGAL/LCN2 Protein

Catalog No.: RP00022 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3934	P80188

Tags

No tag

Synonyms

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

Product Information

Source	Purification
Baculovirus-Infected Sf9 Cells	> 97% by SDS-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.

Contact

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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)₃]. 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 μM of Fe(DHBA)₃.

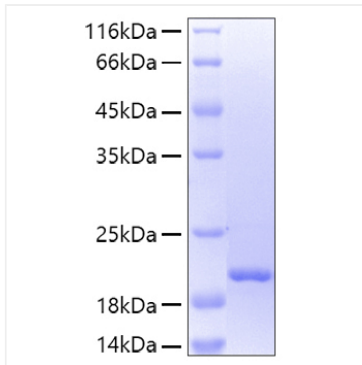
Storage

Store the lyophilized protein at -20°C to -80 °C for long term.

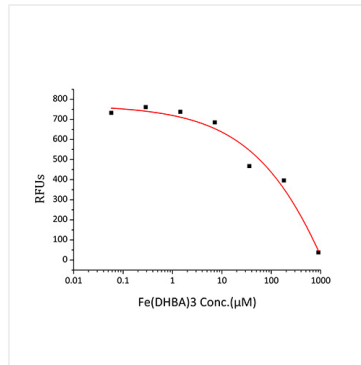
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Lipocalin-2/NGAL/LCN2 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 22 kDa.



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 μM of Fe(DHBA)3.