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# Recombinant Human Lipocalin-1/LCN1 Protein

**Catalog No.: RP01533** Recombinant

## Sequence Information

| Species | Gene ID | Swiss Prot |
|---|---|---|
| Human | 3933 | P31025 |

**Tags**
C-His

**Synonyms**
LCN1;PMFA;TLC;TP;VEGP

## Product Information

| Source | Purification |
|---|---|
| HEK293 cells | ≥ 95 % as determined by SDS-PAGE. |

| Calculated MW | Observed MW |
|---|---|
| 18.28 kDa | 18-20 kDa |

**Endotoxin**
< 0.1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact


400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn


## Background

Lipocalin-1, also known as Von Ebner gland protein, VEG protein, Tear Prealbumin, VEGP, Tear lipocalin, and LCN1 is a secreted protein that belongs to the calycin superfamily and Lipocalin family. Human Lipocalin-1 / VEGP was originally described as a major protein of human tear fluid, which was thought to be tear specific. Lipocalin-1 / VEGP is identical to lingual von Ebner's gland protein and is also produced in the prostate, nasal mucosa, and tracheal mucosa. Homologous proteins have been found in the rat, pig, and probably dog and horse. Lipocalin-1 / VEGP is an unusual lipocalin member, because of its high promiscuity for relative insoluble lipids and binding characteristics that differ from other members. Lipocalin-1 / VEGP acts as the principal lipid-binding protein in tear fluid, a more general physiological function has to be proposed due to its wide distribution and properties. Lipocalin-1 / VEGP would be ideally suited for scavenging of lipophilic, potentially harmful substances and thus might act as a general protection factor of epithelia. Lipocalin-1 / LCN1 could play a role in taste reception. It could be necessary for the concentration and delivery of sapid molecules in the gustatory system. Lipocalin-1 / LCN1 can bind various ligands, with chemical structures ranging from lipids and retinoids to the macrocyclic antibiotic rifampicin and even to microbial siderophores. It exhibits an extremely wide ligand pocket.

## Basic Information

**Description**
Recombinant Human Lipocalin-1/LCN1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (His19-Asp176) of human Lipocalin-1/LCN1 (Accession #NP_002288.1) fused with a 6×His tag at the C-terminus.

**Bio-Activity**
Measured by its ability to inhibit active Cathepsin V cleavage of a fluorogenic peptide substrate Z-LR-AMC. The IC50 value is <2.94 nM.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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

**Operational Notes**
For your safety and health, please wear a lab coat and disposable gloves for handling.

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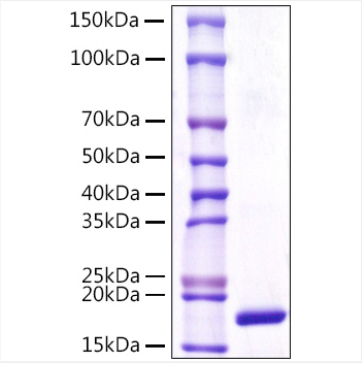
## Validation Data




Recombinant Human Lipocalin-1/LCN1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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