Recombinant Human LCN2 protein

Cat. No. LCN2-28594TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LCN2 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	178
Description	This gene encodes a protein that belongs to the lipocalin family. Members of this family transport small hydrophobic molecules such as lipids, steroid hormones and retinoids. The protein encoded by this gene 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 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.
Form	Lyophilized from a 0.2μm filtered concentrated solution in PBS, pH 7.4, with 0.05 % Tween-20.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0×10^6 IU/mg.

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Molecular Mass	Approximately 41.0 kDa, a homodimeric protein consisting of two 178 amino acid non-glycosylated polypeptide chains.
AA Sequence	QDSTSDLIPAPPLSKVPLQQNFQDNQFQGKWYVVGLAGNAILREDKDPQKMYATIY ELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGEFTLGNIKSYPGLTSYLVRVVST NYNQHAMVFFKKVSQNREYFKITLYGRTKELTSELKENFIRFSKSLGLPENHIVFPVPI DQCIDG
Endotoxin	Less than 0.1 EU/μg of rHuLCN2 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	LCN2
Official Symbol	LCN2
Synonyms	LCN2; lipocalin 2; lipocalin 2 (oncogene 24p3); neutrophil gelatinase-associated lipocalin; 24p3; neutrophil gelatinase associated lipocalin; NGAL; oncogene 24p3;

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	siderocalin; p25; lipocalin-2; migration-stimulating factor inhibitor; 25 kDa alpha-2-microglobulin-related subunit of MMP-9; MSFI;
Gene ID	3934
mRNA Refseq	NM_005564
Protein Refseq	NP_005555
MIM	600181
UniProt ID	P80188

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