

Synonym

NGAL,LCN2,Lipocalin-2,24p3,MSFI

Source

Human Lipocalin-2, His Tag (LC2-H5222) is expressed from human 293 cells (HEK293). It contains AA Gln 21 - Gly 198 (Accession # [NP_005555.2](#)).

Predicted N-terminus: Gln 21

Molecular Characterization

Lipocalin-2(Gln 21 - Gly 198) NP_005555.2	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 21.4 kDa. The protein migrates as 22-25 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

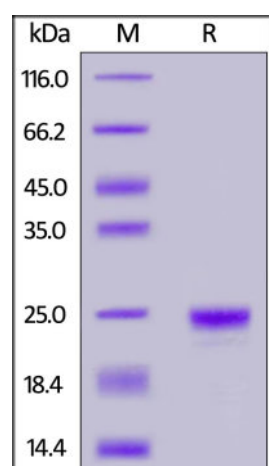
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human Lipocalin-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Background

Lipocalin-2 (LCN2) is also known as oncogene 24p3 or neutrophil gelatinase-associated lipocalin (NGAL), MSFI. The binding of lipocalin-2 to bacterial siderophores is important in the innate immune response to bacterial infection. Upon encountering invading bacteria the toll-like receptors on immune cells stimulate the synthesis and secretion of lipocalin-2. Secreted lipocalin-2 then limits bacterial growth by sequestering iron-containing siderophores. Lipocalin-2 also functions as a growth factor. LCN2 is strongly upregulated during inflammation and is upregulated by interleukin 1 (but not TNF alpha) in humans. There are indications that some forms of acne could be caused due to the gene not being transcribed, and that Isotretinoin corrects this. NFAT3 (NFATc4)NFAT by blocking the expression of

LCN2 inhibits breast carcinoma cell motility. Recent studies have revealed that NGAL plays an important role in the physiopathology of chronic myeloid leukaemia (CML) mediated by BCR-ABL.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.