

**Synonym****Source**

Human LAMP5, His Tag (LA5-H52H9) is expressed from human 293 cells (HEK293). It contains AA Glu 30 - Glu 235 (Accession # [Q9UJQ1-1](#)).

Predicted N-terminus: Glu 30

**Molecular Characterization**

|                                     |          |
|-------------------------------------|----------|
| LAMP5(Glu 30 - Glu 235)<br>Q9UJQ1-1 | Poly-his |
|-------------------------------------|----------|

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 25 kDa. The protein migrates as 31-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22  $\mu\text{m}$  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.*

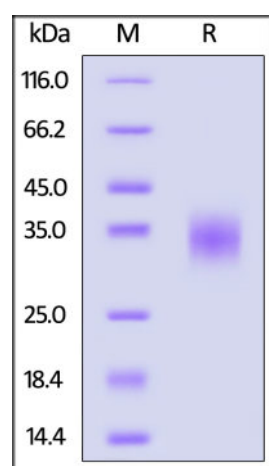
**Storage**

For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human LAMP5, 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 95%.

**Background**

LAMPs (lysosome associated membrane proteins) represent a family of glycosylated proteins present predominantly on the membrane of lysosomes whose expression can vary among different tissues, suggesting a separation of functions. LAMP5 is expressed highly and specifically in MLL-r leukemia. LAMP5 is a direct target of the oncogenic MLL-fusion protein. LAMP5 depletion significantly inhibited leukemia cell growth in vitro and in vivo. Functional studies showed that LAMP-5 is a novel modulator of innate immune pathways in MLL-r leukemias. Downregulation of LAMP5 led to inhibition of NF- $\kappa$ B signaling and increased activation of type-1 interferon signaling downstream of Toll-like Receptor/Interleukin 1 Receptor activation.

**Clinical and Translational Updates**

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.