



Synonym

Envelope protein H&L&UL128&UL130&UL131

Source

Human cytomegalovirus Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag(ENN-V5283) is expressed from human 293 cells (HEK293). It contains AA Ala 31 - Arg 278 & Arg 24 - Leu 719 (H&L) & Glu 28 - Gln 171 (UL128) & Ser 26 - Val 214 (UL130) & Gln 19 - Asn 129 (UL131) (Accession # [Q6SW67](#) & [F5HCH8](#) (H and L) & [V9LLX6](#) (UL128) & [F5HCP3](#) (UL130) & [F5HET4](#) (UL131)).

Predicted N-terminus: Trp (H&L) & Glu 28 (UL128) & Ser 26 (UL130) & Gln 19 (UL131)

Molecular Characterization

This protein carries a twin strep tag and polyhistidine tag.

The protein has a calculated MW of 110.8 kDa (H&L) & 16.7 kDa (UL128) & 23.7 kDa (UL130) & 13.0 kDa (UL131). The protein migrates as 15 kDa, 35 kDa and 130 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a heterologous pentamer.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

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

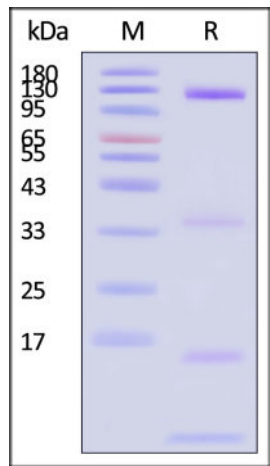
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

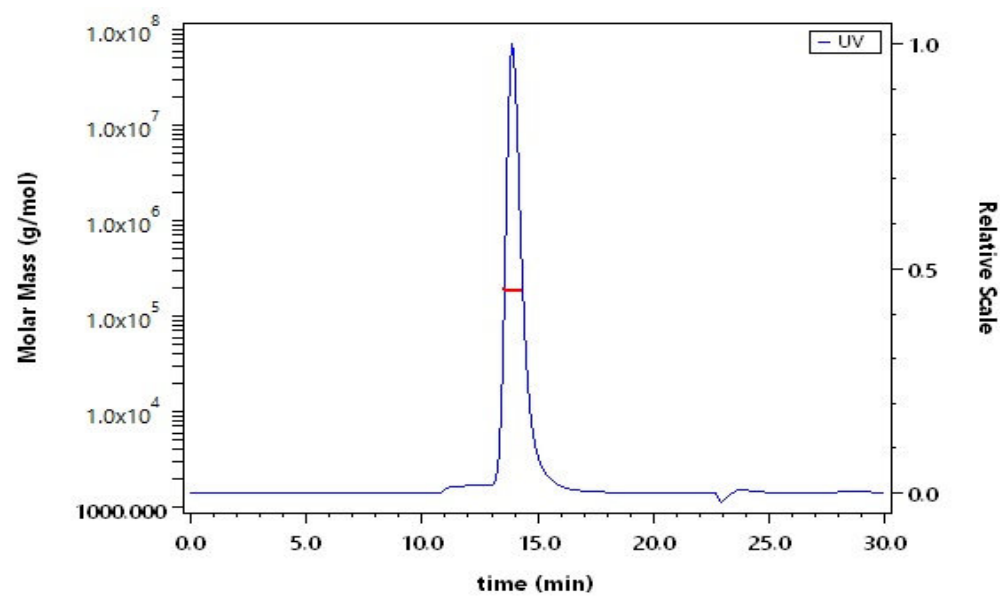
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human cytomegalovirus Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Human cytomegalovirus Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag (Cat. No. ENN-V5283) is more than 85% and the molecular weight of this protein is around 170-200 kDa verified by SEC-MALS.

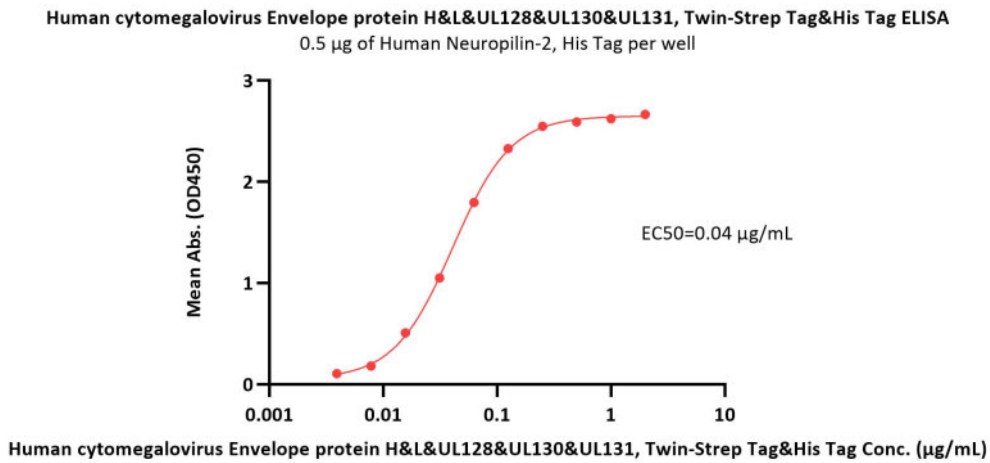
[Report](#)

Bioactivity-ELISA



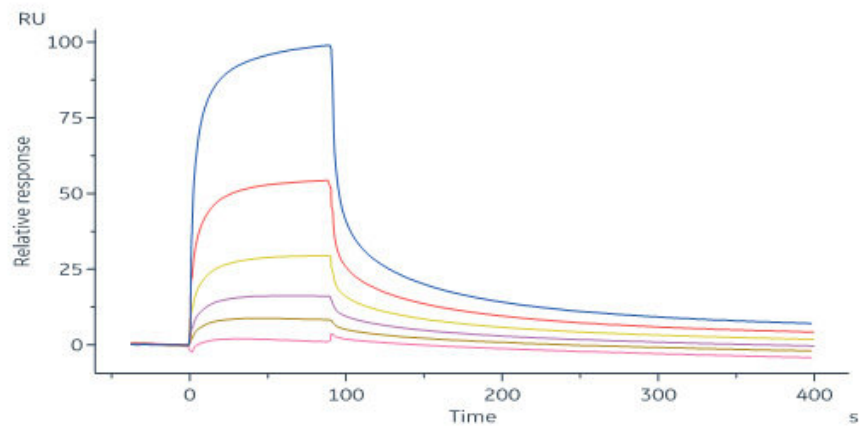
Human cytomegalovirus (strain Merlin) (HHV-5) Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag (MALS verified)

Catalog # ENN-V5283



Immobilized Human Neuropilin-2, His Tag (Cat. No. NR2-H52H3) at 5 µg/mL (100 µL/well) can bind Human cytomegalovirus Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag (Cat. No. ENN-V5283) with a linear range of 0.004-0.125 µg/mL (QC tested).

Bioactivity-SPR



Human Neuropilin-2, His Tag (Cat. No. NR2-H52H3) immobilized on CM5 Chip can bind Human cytomegalovirus Envelope protein H&L&UL128&UL130&UL131, Twin-Strep Tag&His Tag (Cat. No. ENN-V5283) with an affinity constant of 3.41 µM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Human cytomegalovirus (HCMV), a prototypical beta-herpes virus, is a major cause of morbidity and mortality in immunocompromised transplant recipients and congenitally infected fetuses. Different HCMV glycoprotein complexes are capable of mediating entry through interaction with cell-specific receptors on a panel of host cells. The pentamer (gH/gL/UL128/UL130/UL131A) mediates HCMV entry into epithelial, endothelial, and myeloid cells by its binding to neuropilin 2 (Nrp2). The trimer (gH/gL/gO) can mediate infection of all cell types by binding to platelet-derived growth factor-alpha (PDGFRα). Both pentamer and trimer need to interact with the glycoprotein B (gB), the fusogenic protein, to trigger the virus and host cell membrane fusion.

Discounts, Gifts,  
and more!

