

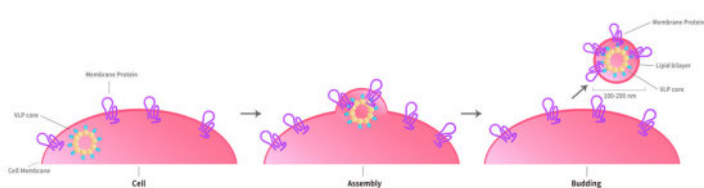
## Source

Human SLC7A11&SLC3A2 Full Length Heterodimer Protein (VLP)(SLS-H52P4) is expressed from human 293 cells (HEK293). It contains AA Val 2 - Leu 501 (SLC7A11) & Glu 2- Ala 630 (SLC3A2) (Accession # [Q9UPY5](#) (SLC7A11) & [P08195](#) (SLC3A2)).

Predicted N-terminus: Met (SLC7A11) & Met (SLC3A2)

## Molecular Characterization

Virus-like particles(VLPs) are formed by self-assembly of envelop/capsid proteins from viruses. Membrane Proteins can be constituted in-situ with VLPs produced from HEK293 cell cultures. These VLPs concentrate conformationally intact membrane proteins directly on the cell surface and produce soluble, high-concentration proteins perfect for immunization and antibody screening.



The VLPs provide the display of properly folded membrane proteins in their native cellular membrane in a compact size of 100~300 nm diameter (similar to the size of most viruses) making it optimal targets for dendritic cells in vivo and surface attachment for phage display.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Formulation

*The VLPs are highly immunogenic, so the immunization strategy should be optimized (antigen dose, regimen and adjuvant).*

Supplied as 0.2 µm filtered solution in PBS, Arginine, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped as sterile liquid solution with dry ice, please inquire the shipping cost.*

## Storage

*Please avoid repeated freeze-thaw cycles.*

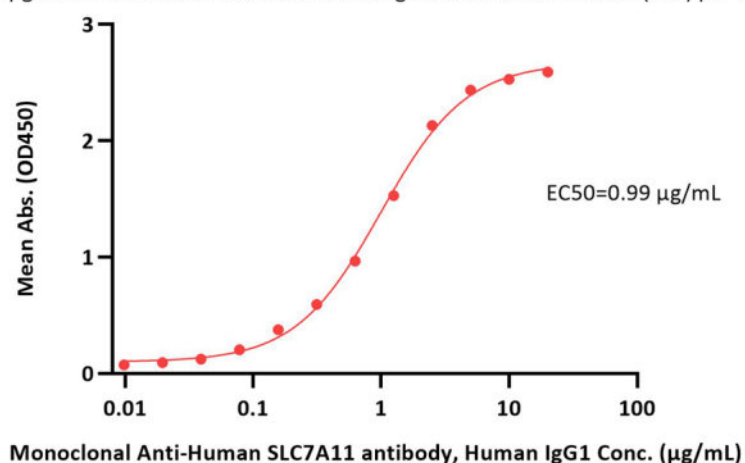
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

\*The isotype control of empty/mock VLP (Cat. No. [VLP-N5213](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

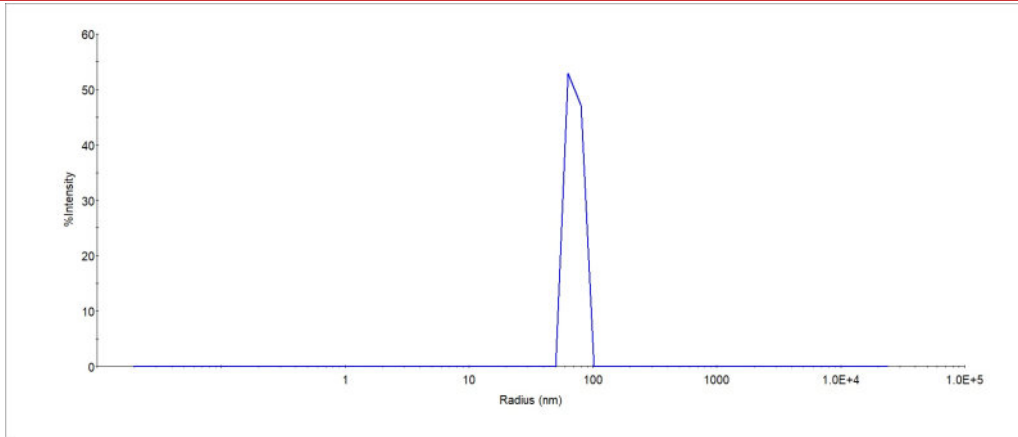
## Bioactivity-ELISA

Human SLC7A11&SLC3A2 Full Length Heterodimer Protein (VLP) ELISA  
0.5 µg of Human SLC7A11&SLC3A2 Full Length Heterodimer Protein (VLP) per well



Immobilized Human SLC7A11&SLC3A2 Full Length Heterodimer Protein (VLP) (Cat. No. SLS-H52P4) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Human SLC7A11 antibody, Human IgG1 with a linear range of 0.01-2.5 µg/mL (QC tested).

## Identity-DLS



The mean peak Radius of VLP is 60-75 nm with more than 95% intensity as determined by dynamic light scattering (DLS).

## Background

Cysteine plays an essential role in cellular redox homeostasis as a key constituent of the tripeptide glutathione (GSH). A rate limiting step in cellular GSH synthesis is the availability of cysteine. However, circulating cysteine exists in the blood as the oxidised di-peptide cystine, requiring specialised transport systems for its import into the cell. System xc<sup>-</sup> is a dedicated cystine transporter, importing cystine in exchange for intracellular glutamate. To counteract elevated levels of reactive oxygen species in cancerous cells system xc<sup>-</sup> is frequently upregulated, making it an attractive target for anticancer therapies.

## Clinical and Translational Updates

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