Human SLC7A11&SLC3A2 Full Length Heterodimer Protein (VLP)

Catalog # SLS-H52P4

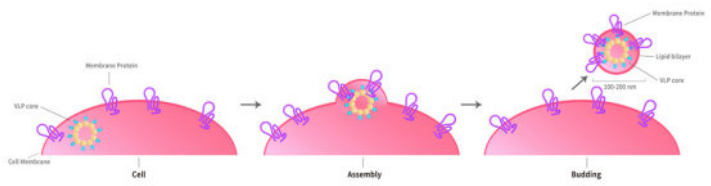
Source

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

The protein has a calculated MW of 59.0 kDa | 69.9 kDa | 56.1 kDa.

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.

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 with dry ice, please inquire the shipping cost.

Storage

Please avoid repeated freeze-thaw cycles.

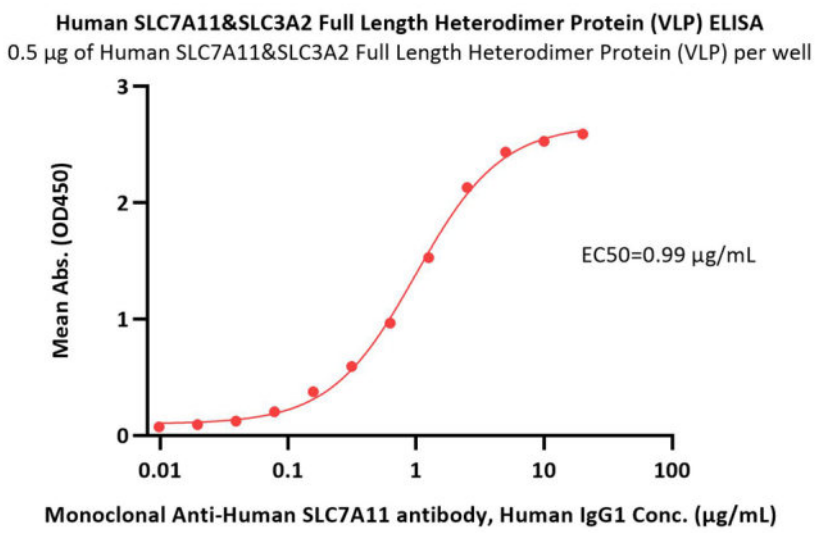
This product is stable after storage at:

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

Endotoxin

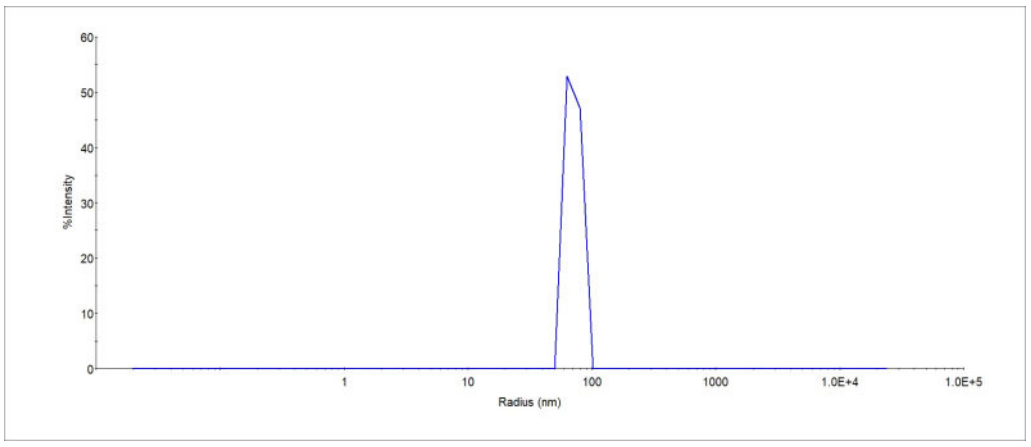
Less than 1.0 EU per μg by the LAL method.
*The isotype control of empty/mock VLP (Cat. No. VLP-N5213) is sold separately and not included in protein, you can follow this link for product information.

Bioactivity-ELISA



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 homoeostasis 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- 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- is frequently upregulated, making it an attractive target for anticancer therapies.

Clinical and Translational Updates