

Synonym

CD133,PROM1,PROML1,Prominin-1,AC133

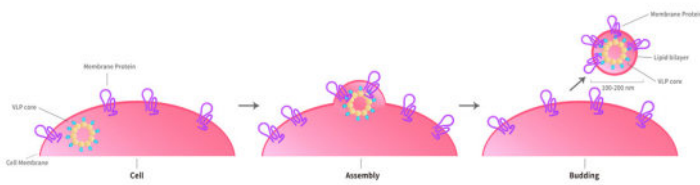
Source

Human CD133 Full Length-VLP(CD3-H52P3) is expressed from human 293 cells (HEK293). It contains AA Gly 20 - His 865 (Accession # [O43490-1](#)).

Predicted N-terminus: His

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, 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

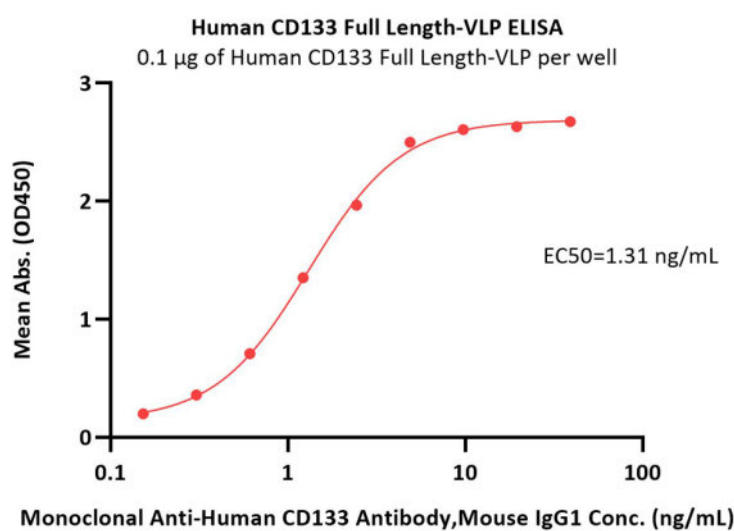
Please avoid repeated freeze-thaw cycles.

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.

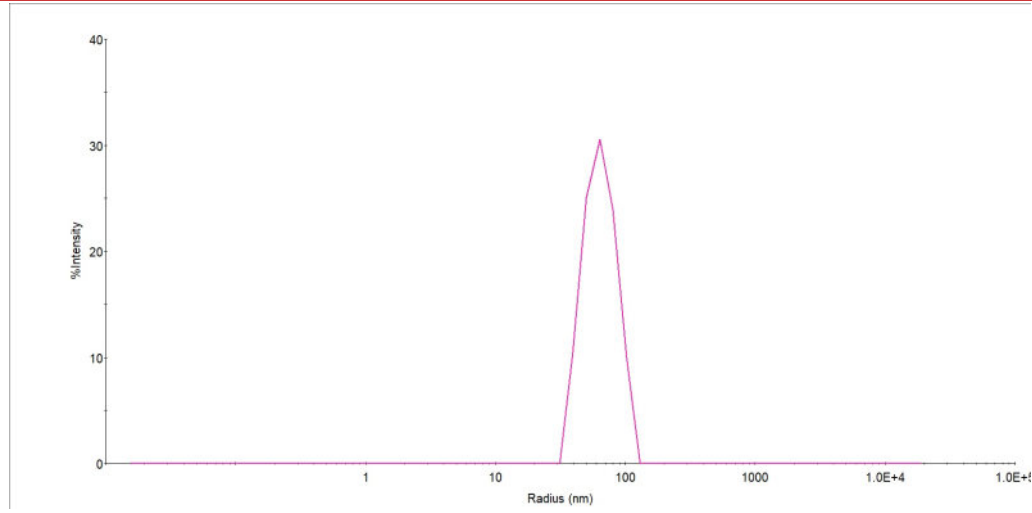
*The isotype control of empty/mock VLP (Cat. No. [VLP-N5213](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

Bioactivity-ELISA



Immobilized Human CD133 Full Length-VLP (Cat. No. CD3-H52P3) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD133 Antibody, Mouse IgG1 with a linear range of 0.2-4 ng/mL (QC tested).

Identity-DLS



The mean peak Radius of VLP is 50-75 nm with more than 95% intensity as determined by dynamic light scattering (DLS).

Background

Prominin-1 is also known as CD133, Antigen AC133, PROM1, PROML1 and MSTP061. Is used as marker for hematopoietic stem and progenitor cells (HSPC) for somatic stem cell isolation. May play a role in cell differentiation, proliferation and apoptosis . Binds cholesterol in cholesterol-containing plasma membrane microdomains and may play a role in the organization of the apical plasma membrane in epithelial cells. During early retinal development acts as a key regulator of disk morphogenesis. Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner.

Clinical and Translational Updates

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