

**Synonym**

CD133,PROM1,PROML1,Prominin-1,AC133

**Source**

Human CD133 Full Length Protein, His Tag(CD3-H52H1) is expressed from human 293 cells (HEK293). It contains AA Gly 20 - His 865 (Accession # [O43490-1](#) ).

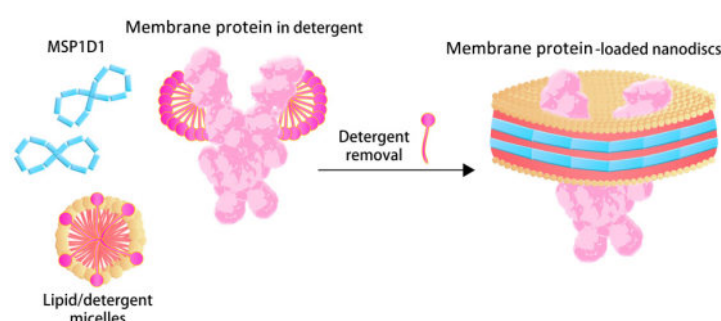
Predicted N-terminus: Gly 20

**Molecular Characterization**

CD133(Gly 20 - His 865) O43490-1	Poly-his
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The CD133 carries a polyhistidine tag at the C-terminus with calculated MW of 97.2 kDa and migrates as 100-115 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation. The membrane scaffold protein (MSP1D1) has calculated MW of 24.7 kDa, and it migrates as 25 kDa under reducing (R) condition (SDS-PAGE).

Nanodiscs are a new class of model membranes that are being used to solubilize and study a range of integral membrane proteins and membrane-associated proteins. The Nanodisc bilayer is bounded by a membrane scaffold protein (MSP1D1) coat that confers enhanced stability and a narrow particle size distribution.



The nanodisc assembles from a mixture of full length membrane protein in detergent, phospholipid micelles and membrane scaffold protein(MSP1D1) upon removal of the detergent.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, pH7.5 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**

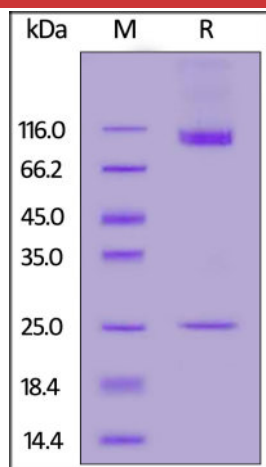
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

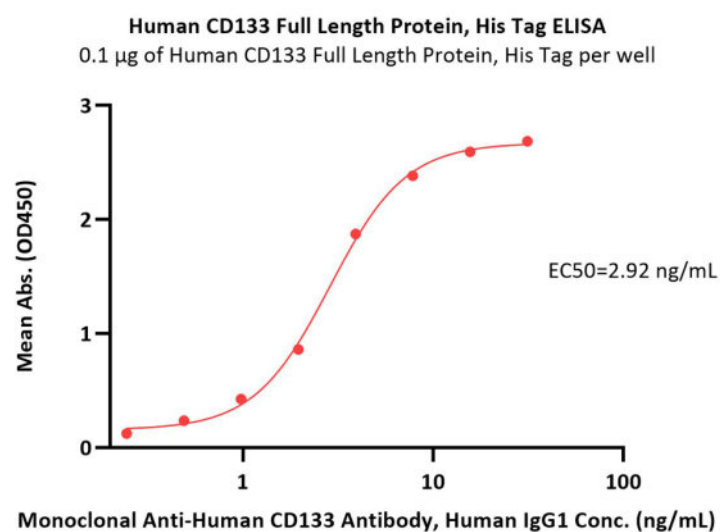
\*The isotype control of empty/mock nanodisc (Cat. No. [APO-H51H3](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

**SDS-PAGE**



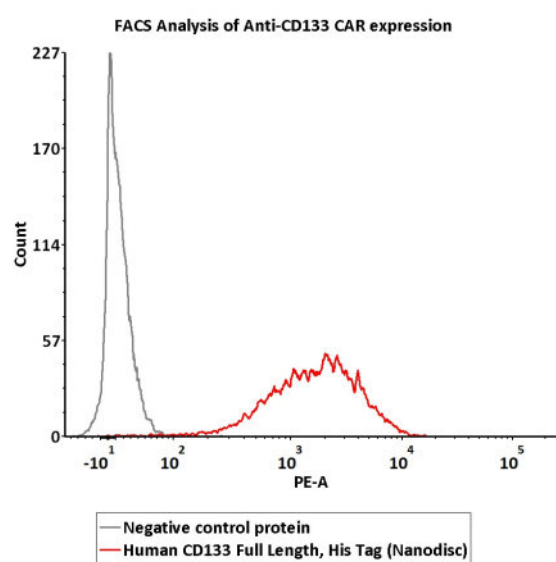
Human CD133 Full Length Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

### Bioactivity-ELISA



Immobilized Human CD133 Full Length Protein, His Tag (Cat. No. CD3-H52H1) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD133 Antibody, Human IgG1 with a linear range of 0.2-4 ng/mL (QC tested).

### Bioactivity-FACS



2e5 of Anti-CD133 CAR-293 cells were stained with 100 µL of 3 µg/mL of Human CD133 Full Length Protein, His Tag (Cat. No. CD3-H52H1) and negative control protein respectively, washed and then followed by PE-anti-His Tag antibody and analyzed with FACS (QC tested).

## 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](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.