

CD133 (h3): 293T Lysate: sc-175470

BACKGROUND

CD133, also known as PROM1 or Prominin, is a stem cell antigen that may be useful for the selection and expansion of hematopoietic cells, and may be used as a positive marker for the characterization of trophoblast cell lines. The human CD133 gene maps to chromosome 4p15.32 and encodes an 865 amino acid protein. The CD133 gene codes for a pentaspan transmembrane glycoprotein that is expressed on primitive hematopoietic stem, progenitor, retinoblastoma, hemangioblasts and neural stem cells and developing epithelium. The 5-TM structure includes an extracellular N-terminus, two short intracellular loops, two large extracellular loops and an intracellular C-terminus. CD133 is a candidate gene for retinal proteins that are targeted to plasma membrane protrusions. These retinal proteins, including CD133, may influence the shedding of photoreceptive membranes from the terminal end of the outer segments of vertebrate photoreceptors, where they are phagocytosed by the retinal pigment epithelium, and represent candidates for inherited retinal degenerations.

REFERENCES

1. Yin, A.H., et al. 1997. AC133, a novel marker for human hematopoietic stem and progenitor cells. *Blood* 90: 5002-5012.
2. Miraglia, S., et al. 1997. A novel five-transmembrane hematopoietic stem cell antigen: isolation, characterization and molecular cloning. *Blood* 90: 5013-5021.
3. Online Mendelian Inheritance in Man, OMIM[™]. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 604365. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Kobari, L., et al. 2001. CD133⁺ cell selection is an alternative to CD34⁺ cell selection for *ex vivo* expansion of hematopoietic stem cells. *J. Hematother. Stem Cell Res.* 10: 273-281.
5. Potgens, A.J., et al. 2001. Human trophoblast contains an intracellular protein reactive with an antibody against CD133—a novel marker for trophoblast. *Placenta* 22: 639-645.
6. LocusLink Report (LocusID: 2243). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PROM1 (human) mapping to 4p15.32.

PRODUCT

CD133 (h3): 293T Lysate represents a lysate of human CD133 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CD133 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD133 antibodies. Recommended use: 10-20 µl per lane.

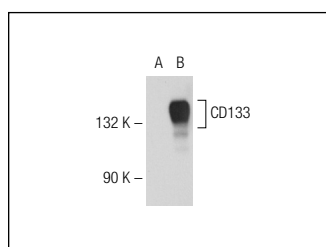
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CD133 (K-18): sc-23797 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD133 expression in CD133 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

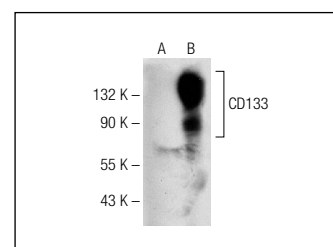
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

DATA



CD133 (K-18): sc-23797. Western blot analysis of CD133 expression in non-transfected: sc-117752 (A) and human CD133 transfected: sc-175470 (B) 293T whole cell lysates.



CD133 (E-11): sc-365537. Western blot analysis of CD133 expression in non-transfected: sc-117752 (A) and human CD133 transfected: sc-175470 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.