



An anti-CD133 hybridoma

A hybridoma for manufacturing anti-CD133 antibodies capable of recognizing glycosylated and non-glycosylated epitopes

IP Status: US Patent Issued; Patent No. 9,249,225

Applications

- Fluorescence-activated cell sorting
- Western blot
- Immunostaining
- Immunohistochemistry
- ELISA

Key Benefits & Differentiators

- **Recognizes both glycosylated and non-glycosylated epitopes of CD133 protein**
- Recognizes CD133 in both humans and mice

Technology Overview

CD133 (Prominin-1) is a glycosylated penta-span transmembrane protein marker frequently found on hematopoietic stem and progenitor cells in human fetal liver, bone marrow, neural stem cells, renal, prostrate, and corneal stem cells. CD133 has also been found to be expressed on cancer stem cells from tumor tissues. Current reagents (such as AC133) predominantly identify only glycosylated epitopes of CD133. Therefore, lack of AC133 immuno-positivity may not always be synonymous with the lack of CD133 protein. An antibody that specifically recognizes and binds to both the glycosylated and non-glycosylated forms of CD133 protein will be a beneficial tool in the detection, identification, and isolation of CD133 positive stem cells.

Researchers at the University of Minnesota have developed a novel monoclonal antibody against CD133 to overcome the limitations of existing anti-CD133 antibodies. This antibody recognizes both glycosylated and non-glycosylated epitopes of CD133, applicable in both humans and mice. A patent-protected hybridoma produces the antibody.

Phase of Development

TRL: 8-9

The hybridoma is available for licensing. Antibodies from the hybridoma have been utilized in publications from independent laboratories.

Citations

- [Swaminathan SK, et al. 2010. Journal of Immunological Methods. 361, 110-115](#)
- [Görgens A, et al. 2014. Stem Cell Reports. 3\(6\)](#)

Researchers

Technology ID

20110014

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