EpiDtect™

# CD133 Primary Antibody

**Clone:** **PROM1/6316 (Mouse Monoclonal)**

**Localization** –Cytoplasm
**Host Species** – Mouse
**Ig Class** – IgG1

| ORDERING INFORMATION | |
|---|---|
| **CATALOG#** | **DESCRIPTION** |
| DH611-01C | 0.1 ML Concentrated Antibody Vial |
| DH611-05C | 0.5 ML Concentrated Antibody Vial |
| DH611-1C | 1 ML Concentrated Antibody Vial |
| DH611-3R | 3 ML Ready-to-Use Antibody Vial |
| DH611-6R | 6 ML Ready-to-Use Antibody Vial |
| DH611-12R | 12 ML Ready-to-Use Antibody Vial |

## Intended Use

This antibody is designed for the specific localization of CD133 in formalin-fixed, paraffin-embedded (FFPE) tissue sections.

## Storage & Handling

Store RTU Vial at 2-8°C. Fresh dilutions for concentrated antibodies, if required, should be prepared prior to use and are stable for up to one day at room temperature (20-26°C).

## Working Principle

CD133 (PROM1/Prominin-1) is a cell surface glycoprotein widely recognized as a stem and progenitor cell–associated antigen. It is commonly utilized for the isolation, enrichment, and expansion of hematopoietic stem and progenitor cells and serves as a positive phenotypic marker for the characterization of trophoblast-derived cell lines. The human PROM1 gene is localized to chromosome 4p15.32 and encodes an 865–amino acid pentaspan transmembrane protein.CD133 is expressed on primitive hematopoietic stem and progenitor cells, hemangioblasts, neural stem cells, retinoblastoma cells, and cells of developing epithelial tissues. Structurally, CD133 contains five transmembrane domains, an extracellular N-terminus, two short intracellular loops, two large extracellular loops, and a cytoplasmic C-terminus.Functionally, CD133 is considered a candidate retinal protein involved in targeting membrane components to plasma membrane protrusions. In the retina, CD133 and related proteins may participate in the regulation of photoreceptor outer segment membrane shedding, a process critical for the renewal of photoreceptive discs and their subsequent phagocytosis by the retinal pigment epithelium. Dysregulation of this pathway implicates CD133 as a potential contributor to inherited retinal degenerative disorders.

## Material Supplied

CD133 -antibody is affinity purified and diluted in PBS, pH 7.4, containing 1% BSA and 0.09% sodium azide.

## Material required But Not Supplied

- Xylene
- DI Water
- Control Tissues
- Isopropyl alcohol
- Antigen retrieval buffers
- Hematoxylin
- Positive charged slides
- Blocking Reagents
- Mounting media
- Wash Buffer
- Detection System
- Cover glass

## Working Reagent Procedure

- Ready-to-Use antibodies have been optimized for use with the recommended protocols and should not require further dilution.
- Concentrated antibodies must be diluted in accordance with the recommended protocol.

## Recommended Protocol

Refer the following table for the details on specific recommended protocol for this antibody.

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| **Control Tissue** | Human tonsil., Raji |
| **Dilution factor** | **1:20-50** (Antibody Diluent: DH144) |

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| **Antibody Incubation Time** | 30-60 Minutes at RT |
| **Retrieval Pre-treatment** | **Tris-EDTA based HIER** (AR9 Buffer: DH020) |

## Precautions

*This product should be used by qualified and trained professional users only.*
Avoid microbial contamination of reagents to minimize non-specific staining. Never pipette reagents by mouth. Avoid contact of reagents and specimens with skin. If reagents or specimens come into contact with sensitive area, wash with sufficient amounts of water. Dispose of the unused reagents. This kit contain sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at these concentrations, but proper handling protocols should be observed. For more information on product hazards, precautions and waste disposal, *Material Safety Data Sheets* are available upon request.

## Limitations

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure. Evaluation must be performed by a qualified pathologist.

## Troubleshooting

For Technical Support contact us at +91 - *7506501122* or *info@dygnova.com* or your local distributor to report unusual staining.



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| | Manufacturer Details | | Use by Date | LOT | Lot/Batch Number |
| | Manufacturing Date | | Consult Instructions for Use | REF | Catalogue Number |
| | Temperature Limits | | Sufficient for 'n' assays / tests | IVD | In-vitro Diagnostic Medical Device |

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