

Rat CD133 / PROM1 / Prominin 1 Protein (Fc Tag)

Catalog Number: 80324-R04H



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Biological Solution Specialist

General Information

Gene Name Synonym:

AC133; CD133; CORD12; MCDR2; MSTP061; PROM1; RP41; STGD4; 4932416E19Rik; AC133; CD133; Prom; Prom-1; Proml1

Protein Construction:

A DNA sequence encoding the rat PROM1 (NP_001103607.1) (Asn171-Tyr424) was with the Fc region of mouse IgG1 at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: (79.2+14.5) % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Asp

Molecular Mass:

The recombinant rat PROM1 comprises 490 amino acids and predicts a molecular mass of 55.1 kDa. The apparent molecular mass of the recombinant protein is approximately 67 and 34 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

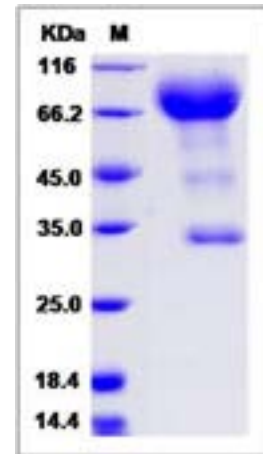
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CD133, also known as PROM1 and Prominin 1, is a pentaspan transmembrane glycoprotein which belongs to the prominin family. It localizes to membrane protrusions and is often expressed on adult stem cells. CD133 is known to play a role in maintaining stem cell properties by suppressing differentiation. CD133 binds cholesterol in cholesterol-containing plasma membrane microdomains. It is proposed to play a role in apical plasma membrane organization of epithelial cells. CD133 is also involved in regulation of MAPK and Akt signaling pathways. Mutations in PROM1 gene have been shown to result in retinitis pigmentosa and Stargardt disease. PROM1 gene is expressed from at least five alternative promoters that are expressed in a tissue-dependent manner. Expression of this gene is also associated with several types of cancer.

References

1. Corbeil D. et al., 2001, Biochem Biophys Res Commun. 285 (4): 939-44.
2. Horn PA. et al., 1999, Blood. 93 (4): 1435-37.
3. Sanai N. et al., 2005, N Engl J Med. 353 (8): 811-22.

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