



Recombinant Protein Technical Manual
Recombinant Rat CD133/PROM1/Prominin 1 Protein
(His Tag)
RPES4417

Product Data:

Product SKU: RPES4417

Size: 20µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: F1MAN1

Protein Information:

Molecular Mass: 30.9 kDa

AP Molecular Mass: 47-57 kDa

Tag: N-His

Bio-activity:

Purity: > 90 % as determined by SDS-PAGE

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

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: PROM1

Immunogen Information:

Sequence: Asn171-Tyr424

Background:

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.