

## Recombinant Rat Prom1, His-tagged

**Cat. No.** Prom1-121R    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**

A DNA sequence encoding the rat PROM1 (F1MAN1) (Asn171-Tyr424) was expressed with a polyhistidine tag at the N-terminus.

**Species**

Rat

**Source**

Human Cells

**ProteinLength**

171-424 a.a.

**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.

**Predicted N Terminal**

His

**Form**

Lyophilized from sterile PBS, pH 7.4.

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<b>Molecular Mass</b>	The recombinant rat PROM1 comprises 274 amino acids and predicts a molecular mass of 30.9 kDa. The apparent molecular mass of the recombinant protein is approximately 47-57 kDa in SDS-PAGE under reducing conditions.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method
<b>Purity</b>	> 90 % as determined by SDS-PAGE
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70°C
<b>Storage</b>	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Reconstitution</b>	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

## GENE INFORMATION

<b>Gene Name</b>	Prom1 prominin 1 [ <i>Rattus norvegicus</i> (Norway rat) ]
<b>Official Symbol</b>	Prom1
<b>Synonyms</b>	Prom1; Prom; CD133; prominin 1; fudenine
<b>Gene ID</b>	<a href="#">60357</a>
<b>mRNA Refseq</b>	<a href="#">NM_021751</a>
<b>Protein Refseq</b>	<a href="#">NP_068519</a>
<b>Chromosome</b>	14q21

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**Location**

**Pathway**

Transcriptional misregulation in cancer

**Function**

actinin binding; cadherin binding; molecular\_function

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