

## Product datasheet for **RC227854**

### CD133 (PROM1) (NM\_001145847) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD133 (PROM1) (NM_001145847) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD133
Synonyms:	AC133; CD133; CORD12; MCDR2; MSTP061; PROML1; RP41; STGD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC227854 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCCTCGTACTCGGCTCCCTGTTGCTGCTGGGGCTGTGCGGAACTCCTTTTCAGGAGGCAGCCTT  
 CATCCACAGATGCTCCTAAGGCTTGGAATTATGAATTGCCTGCAACAAATTATGAGACCCAAAGACTCCCA  
 TAAAGCTGGACCCATTGGCATTCTCTTTGAACTAGTGCATATCTTTCTCTATGTGGTACAGCCCGCTGAT  
 TTCCAGAAAGATACTTTGAGAAAATTCTTACAGAAGGCATATGAATCCAAAATTGATTATGACAAGATTG  
 TCTACTATGAAGCAGGGATTATTCTATGCTGTGCTCTGGGGCTGCTGTTATTATTCTGATGCCTCTGGT  
 GGGGTATTTCTTTGTATGTGTCGTTGCTGTAACAAATGTGGTGGAGAAATGCACCAGCGACAGAAGGAA  
 AATGGGCCCTTCCTGAGGAAATGCTTTGCAATCTCCCTGTTGGTATTGTATAATAAAGCATTGGCA  
 TCTTCTATGGTTTTGTGGCAAATCACCAGGTAAGAACCCGGATCAAAGGAGTCGGAAACTGGCAGATAG  
 CAATTTCAAGGACTTGCGAATCTCTTGAATGAACTCCAGAGCAAATCAAATATATATTGGCCAGTAC  
 AACACTACCAAGGACAAGGCGTTCACAGATCTGAACAGTATCAATTCAGTCTAGGAGGCCGAATTCCTG  
 ACCGACTGAGACCCAACATCATCCCTGTTCTTGATGAGATTAAGTCCATGGCAACAGCGATCAAGGAGAC  
 CAAAGAGGCGTTGGAGAACATGAACAGCACCTTGAAGAGCTTGCACCAACAAAGTACACAGCTTAGCAGC  
 AGTCTGACCAGCGTGAAGACTAGCCTGCGGTATCTCTCAATGACCCTCTGTGCTTGGTGCATCCATCAA  
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 ACCCGTGGATGCAGAACTTGACAACGTTAATAACGTTCTTAGGACAGATTGGATGGCCTGGTCCAACAG  
 GGCTATCAATCCCTTAATGATATACCTGACAGAGTACAACGCCAAACCAGACTGTCGATCAGGATATCA  
 AAAGGCTTTGAATCCATTGGTTGAGATATCGACAATGTAACCTCAGCGTCTTCTATTCAGGATATCT  
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 AAACCTTCAGGATTTTGCTGCTTGTGGAATAGACAGAATGAATTATGACAGCTACTTGGCTCAGACTGGT  
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 GATGTCTTTCTGTAGCTACATTATCGACCCCTTGAATTTGTTTTGGTTTGGCATAGGAAAAGCTACTG  
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 CGTGATGATGTTGAACTATACCATGAAAAATATGAAAAATGGTAATAATGGTTATCATAAAGAT  
 CATGTATATGGTATTCACAATCTGTTATGACAAGCCCATCACAACAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227854 protein sequence  
 Red=Cloning site Green=Tags(s)

MALVLGSLLLLGLCGNSFSGGQPSSTDAPKAWNYELPATNYETQDSHKAGPIGILFELVHIFLYVVQPRD  
 FPEDTLRKFLOKAYESKIDYDKIVVYEAGIILCCVLGLLFIILMPLVGYFFCMCRCCNCKCGGEMHQKE  
 NGPFLRKCFAISLLVICIIISIGIFYGFVANHQVRTRIKRSRKLADSNFKDLRTLNETPEQIKYILAQY  
 NTKDKAFTDLNSINSVLGGGILDRLRPNIIPVLDEIKSMATAIKETKEALENMNSTLKSLHQSTQLSS  
 SLTSVKTSLSRSSLNDPLCLVHPSETCNSIRLSLSQLNSNPQLRQLPPVDAELDNVNNVLRDLDGLVQQ  
 GYQSLNDIPDRVQRQTTTVVAGIKRVLNSIGSDIDNVTQRLPIQDILSAFVSVVNNTESYIHRNLPLEE  
 YDSYWLLGGLVICSLLLTIVIFYLGLLCGVCYDRHATPTTRGCVSNTGGVFLMVGVLSFLFCWILMI  
 IVVLTFFVGFANVEKLICEPYTSKELFRVLDTPYLLNEDWEYYLGGKLFNKSKMKLTFEQVYSDCKKNGRT  
 YGTLHLQNSFNISEHLNINEHTGSISSLESLKVNINIFLLGAAGRKNLQDFAACGIDRMNYDSYLAQTG  
 KSPAGVNLFSFAYDLEAKANSLPPGNLRNSLRDAQTIKTIHQQRVLPVIEQSLSTLYQSVKILQRTGNGL  
 LERVTRILASLDFANFITNNTSSVIIETKKGRTIIGYFEHYLQWIEFSISEKVASCKPVATALDTAV  
 DVFLCSYIIDPLNLFWFVIGKATVFLPALIFAVKLAKYRRMDESDVYDDVETIPMKNMENGNNGYHKD  
 HVIYGIHNPVMTSPSQH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

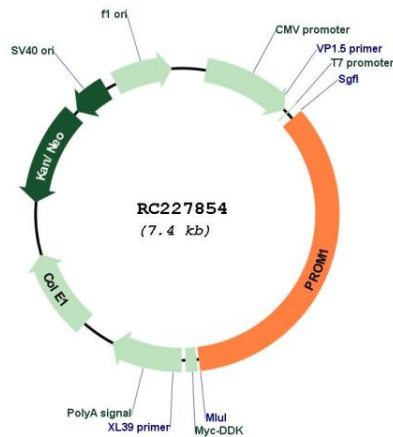
**Cloning Scheme:**



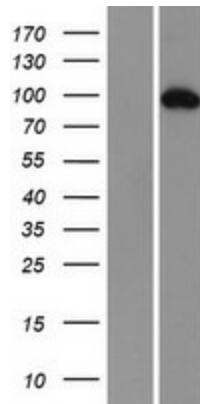
<b>ACCN:</b>	NM_001145847
<b>ORF Size:</b>	2568 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001145847.2</a>
<b>RefSeq Size:</b>	4257 bp
<b>RefSeq ORF:</b>	2571 bp
<b>Locus ID:</b>	8842
<b>UniProt ID:</b>	<a href="#">O43490</a>
<b>Cytogenetics:</b>	4p15.32
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>MW:</b>	96.3 kDa

**Gene Summary:**

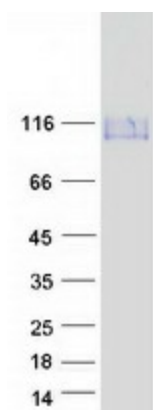
This gene encodes a pentaspan transmembrane glycoprotein. The protein localizes to membrane protrusions and is often expressed on adult stem cells, where it is thought to function in maintaining stem cell properties by suppressing differentiation. Mutations in this gene have been shown to result in retinitis pigmentosa and Stargardt disease. Expression of this gene is also associated with several types of cancer. This gene is expressed from at least five alternative promoters that are expressed in a tissue-dependent manner. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

**Product images:**


Circular map for RC227854



Western blot validation of overexpression lysate (Cat# [LY429028]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227854 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PROM1 protein (Cat# [TP327854]). The protein was produced from HEK293T cells transfected with PROM1 cDNA clone (Cat# RC227854) using MegaTran 2.0 (Cat# [TT210002]).