

## Product datasheet for **RC227954**

### CD133 (PROM1) (NM\_001145852) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD133 (PROM1) (NM_001145852) 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:**

>RC227954 representing NM\_001145852  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCCTCGTACTCGGCTCCCTGTTGCTGCTGGGGCTGTGCGGAACTCCTTTTCAGGAGGGCAGCCTT  
 CATCCACAGATGCTCCTAAGGCTTGAATTATGAATTGCCTGCAACAAATTATGAGACCCAAAGACTCCCA  
 TAAAGCTGGACCCATTGGCATTCTCTTTGAACTAGTGCATATCTTTCTCTATGTGGTACAGCCGCGTGAT  
 TTCCAGAAAGATACTTTGAGAAAATTCTTACAGAAGGCATATGAATCCAAAATTGATTATGACAAGATTG  
 TCTACTATGAAGCAGGGATTATTCTATGCTGTGCTCTGGGGCTGCTGTTATTATTCTGATGCCTCTGGT  
 GGGGTATTTCTTTGTATGTGCTGTTGCTGTAACAAATGTGGTGGAGAAATGCACCAGCGACAGAAGGAA  
 AATGGGCCCTTCCTGAGGAAATGCTTTGCAATCTCCCTGTTGGTGATTTGTATAATAAAGCATTGGCA  
 TCTTCTATGGTTTTGTGGCAAATCACCAGGTAAGAACCCGGATCAAAGGAGTCGGAACTGGCAGATAG  
 CAATTTCAAGGACTTGCGAATCTCTTGAATGAACTCCAGAGCAAATCAAATATATATTGGCCAGTAC  
 AACACTACCAAGGACAAGGCGTTCACAGATCTGAACAGTATCAATTCAGTCTAGGAGGCCGAATTCCTG  
 ACCGACTGAGACCCAACATCATCCCTGTTCTTGATGAGATTAAGTCCATGGCAACAGCGATCAAGGAGAC  
 CAAAGAGGCGTTGGAGAACATGAACAGCACCTTGAAGAGCTTGCACCAACAAAGTACACAGCTTAGCAGC  
 AGTCTGACCAGCGTGAAGACTAGCCTGCGGTCTCTCTCAATGACCCTCTGTGCTTGGTGCATCCATCAA  
 GTGAAACCTGCAACAGCATCAGATTGTCTCTAAGCCAGCTGAATAGCAACCTGAACTGAGGCAGCTTCC  
 ACCCGTGGATGCAGAACTTGACAACGTTAATAACGTTCTTAGGACAGATTGGATGGCCTGGTCCAACAG  
 GGCTATCAATCCCTTAATGATATACCTGACAGAGTACAACGCCAAACCAGACTGTCGTAGCAGGTATCA  
 AAAGGTCTTGAATCCATTGGTTCAGATATCGACAATGTAACCTCAGCGTCTTCTATTCAGGATAATA  
 CTCAGCATCTCTGTTTTATGTTAATAACACTGAAAGTTACATCCACAGAAATTTACCTACATTGGAAAGAG  
 TATGATTCATACTGGTGGCTGGGTGGCCTGGTCTCTGCTCTCTGCTGACCCTCATCGTATTTTTTACT  
 ACCTGGGCTTACTGTGTGGCGTGTGCGGCTATGACAGGCATGCCACCCGACCACCCGAGGCTGTGTCTC  
 CAACACCCGAGGCGTCTTCTCATGGTTGGAGTTGGATTAAGTTTCTCTTTTGTGGATATTGATGATC  
 ATTGTGGTTCTTACCTTTGTCTTTGGTCAAAATGTGGAAAACTGATCTGTGAACCTTACACGAGCAAGG  
 AATTATCCGGGTTTTGGATACACCCTACTTACTAAATGAAGACTGGGAATACTATCTCTCTGGGAAGCT  
 ATTTAATAAATCAAAAATGAAGTCACTTTTGAACAAGTTTACAGTGACTGCAAAAAAATAGAGGCACT  
 TACGGCACTCTTACCTGCAGAACAGCTTCAATATCAGTGAACATCTCAACATTAATGAGCATACTGGAA  
 GCATAAGCAGTGAATTGGAAAGTCTGAAGTAAATCTTAATATCTTTCTGTTGGGTGCAGCAGGAAGAAA  
 AAACCTTCAGGATTTTGCTGCTTGTGGAATAGACAGAATGAATTATGACAGCTACTTGGCTCAGACTGGT  
 AAATCCCCCGCAGGAGTGAATCTTTTATCATTGTCATATGATCTAGAAGCAAAGCAAACAGTTTGGCCC  
 CAGGAAATTTGAGGAACTCCCTGAAAAGAGATGCACAACTATTAACAATTCACCAGCAACGAGTCTCT  
 TCCTATAGAACAATCACTGAGCACTCTATACCAAAGCGTCAAGATACTTCAACGCACAGGGAATGGATTG  
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 CTGTTATTATTGAGGAACTAAGAAGTATGGGAGAACAATAATAGGATATTTTGAACATTATCTGCAGTG  
 GATCGAGTTCTCTATCAGTGAGAAAGTGGCATCGTGCAAACCTGTGGCCACCGCTCTAGATACTGCTGTT  
 GATGTCTTTCTGTAGCTACATTATCGACCCCTTGAATTTGTTTTGGTTTGGCATAGGAAAAGCTACTG  
 TATTTTTACTTCCGGCTCTAATTTTTGCGGTAATAACTGGCTAAGTACTATCGTCGAATGGATTTCGGAGGA  
 CGTGATCGATGACCCATCACAACAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227954 representing NM\_001145852  
 Red=Cloning site Green=Tags(s)

MALVLSLLLLGLCGNSFSGGQPSSTDAPKAWNYELPATNYETQDSHKAGPIGILFELVHIFLYVQPRD  
 FPEDTLRKFLQKAYESKIDYDKIVVYEAGIILCCVLGLLFIILMPLVGYFFCMCRCCNKCGGEMHQKQKE  
 NGPFLRKCF AISLLVICIIISIGIFYGFVANHQVRTRIKRSRKLADSNFKDLRLLNETPEQIKYILAQY  
 NTTKDKAFTDLNSINSVLGGGILDRLRPNIIPVLDEIKSMATAIKETKEALENMNSTLKSLHQSTQLSS  
 SLTSVKTSLRSSLNDPLCLVHPSETCNSIRLSLSQLNSNPELRQLPPVDAELDNVNNVLRDLDGLVQQ  
 GYQSLNDIPDRVQRQTTTVVAGIKRVLNSIGSDIDNVTQRLPIQDILSAFVYVNNNTESYIHRNLPLEE  
 YDSYWWLGGLVICSLTLLIVIFYLGLLCGVCYDRHATPTTRGCVSNTGGVFLMVGVLGSLFCWILMI  
 IVVLTFFVGFANVEKLICEPYTSKELFRVLDTPYLLNEDWEYYLSGKLFNKSKMKLTFEQVYSDCKKNRGT  
 YGTLHLQNSFNISEHLNINEHTGSISSSELESKVNINIFLLGAAGRKNLQDFAACGIDRMNYDSYLAQTG  
 KSPAGVNL LSFAYDLEAKANSLPPGNLRNSLKRDAQTIKTIHQQRVLP IEQSLSTLYQSVKILQRTGNL  
 LERVTRILASLDF AQNFITNNTSSVIIIEETKKGRTIIGYFEHYLQWIEFSISEKVASCKPVATALDTAV  
 DVFLCSYIIDPLNLFWFGIGKATVFLPALIFAVKLAKYRRMSEDEVYDDPSQH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001145852

**ORF Size:** 2475 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_001145852.2](#)

**RefSeq ORF:** 2478 bp

**Locus ID:** 8842

**UniProt ID:** [O43490](#)

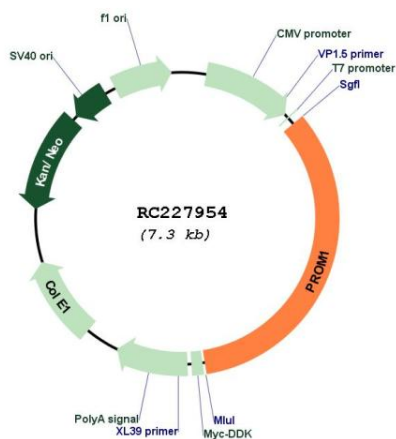
**Cytogenetics:** 4p15.32

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**MW:** 92.6 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 RC227954