

Product datasheet for **RG227927**

CD133 (PROM1) (NM_001145851) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD133 (PROM1) (NM_001145851) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PROM1
Synonyms:	AC133; CD133; CORD12; MCDR2; MSTP061; PROML1; RP41; STGD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG227927 representing NM_001145851
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCTCGTACTCGGCTCCCTGTTGCTGCTGGGGCTGTGCGGAACTCCTTTTCAGGAGGCAGCCTT
 CATCCACAGATGCTCCTAAGGCTTGAATTATGAATTGCCTGCAACAAATTATGAGACCCAAAGACTCCCA
 TAAAGCTGGACCCATTGGCATTCTCTTTGAACTAGTGCATATCTTTCTCTATGTGGTACAGCCGCGTGAT
 TTCCAGAAAGATACTTTGAGAAAATTCTTACAGAAGGCATATGAATCCAAAATTGATTATGACAAGATTG
 TCTACTATGAAGCAGGGATTATTCTATGCTGTGCTCTGGGGCTGCTGTTATTATTCTGATGCCTCTGGT
 GGGGTATTTCTTTGTATGTGTCGTTGCTGTAACAAATGTGGTGGAGAAATGCACCAGCGACAGAAGGAA
 AATGGGCCCTTCCTGAGGAAATGCTTTGCAATCTCCCTGTTGGTGATTTGTATAATAAAGCATTGGCA
 TCTTCTATGGTTTTGTGGCAAATCACCAGGTAAGAACCCGGATCAAAGGAGTCGGAAACTGGCAGATAG
 CAATTTCAAGGACTTGCGAATCTCTTGAATGAACTCCAGAGCAAATCAAATATATATTGGCCAGTAC
 AACACTACCAAGGACAAGGCGTTCACAGATCTGAACAGTATCAATTCAGTGCTAGGAGGCCGAATTCCTG
 ACCGACTGAGACCAACATCATCCCTGTTCTTGATGAGATTAAGTCCATGGCAACAGCGATCAAGGAGAC
 CAAAGAGGCGTTGGAGAACATGAACAGCACCTTGAAGAGCTTGCACCAACAAAGTACACAGCTTAGCAGC
 AGTCTGACCAGCGTGAAGACTAGCCTGCGGTATCTCTCAATGACCCTCTGTGCTTGGTGATCCATCAA
 GTGAAACCTGCAACAGCATCAGATTGTCTCTAAGCCAGCTGAATAGCAACCTGAACTGAGGCAGCTTCC
 ACCCGTGGATGCAGAACTTGACAACGTTAATAACGTTCTTAGGACAGATTTGGATGGCCTGGTCCAACAG
 GGCTATCAATCCCTTAATGATATACCTGACAGAGTACAACGCCAAACCAGACTGTCGTAGCAGGTATCA
 AAAGGCTTTGAATCCATTGGTTCAGATATCGACAATGTAACCTCAGCGTCTTCCATTCAGGATAATA
 CTCAGCATCTCTGTTTTATGTTAATAACACTGAAAGTTACATCCACAGAAATTTACCTACATTGGAAGAG
 TATGATTCATACTGGTGGCTGGGTGGCCTGGTCTCTGCTCTCTGCTGACCCCTATCGTGATTTTTTACT
 ACCTGGGCTTACTGTGTGGCGTGTGCGGCTATGACAGGCATGCCACCCGACCACCCGAGGCTGTGTCTC
 CAACACCCGAGGCGTCTTCTCATGGTTGGAGTTGGATTAAGTTTCTCTTTTGTGGATATTGATGATC
 ATTGTGGTTCTTACCTTTGTCTTTGGTCAAATGTGGAAAACTGATCTGTGAACCTTACACGAGCAAGG
 AATTATCCGGGTTTTGGATACACCCTACTTACTAAATGAAGACTGGGAATACTATCTCTCTGGGAAGCT
 ATTTAATAAATCAAAAAAAGCTCACTTTTGAACAAGTTTACAGTGACTGCAAAAAAATAGAGGCACT
 TACGGCACTCTTACCTGCAGAACAGCTTCAATATCAGTGAACATCTCAACATTAATGAGCATACTGGAA
 GCATAAGCAGTGAATTGGAAGTCTGAAGTAAATCTTAATATCTTTCTGTTGGGTGCAGCAGGAAGAAA
 AAACCTTCAGGATTTTGTGCTTGTGGAATAGACAGAATGAATTATGACAGCTACTTGGCTCAGACTGGT
 AAATCCCCCGCAGGAGTGAATCTTTTATCATTGTCATATGATCTAGAAGCAAAAGCAAACAGTTTGGCCC
 CAGGAAATTTGAGGAACTCCCTGAAAAGAGATGCACAACTATTAACAATTCACCAGCAACGAGTCTCT
 TCCTATAGAACAATCACTGAGCACTCTATACCAAAGCGTCAAGATACTTCAACGCACAGGGAATGGATTG
 TTGGAGAGAGTAACTAGGATTCTAGCTTCTCTGGATTTTGTCTCAGAACTTATCACAACAATACTTCTCT
 CTGTTATTATTGAGGAACTAAGAAGTATGGGAGAACAATAATAGGATTTTTGAACATTATCTGCAGTG
 GATCGAGTTCTCTATCAGTGAGAAAGTGGCATCGTGCAAACCTGTGCCACCGCTCTAGATACTGCTGTT
 GATGTCTTTCTGTAGCTACATTATCGACCCCTTGAATTTGTTTTGGTTTGGCATAGGAAAAGCTACTG
 TATTTTTACTTCCGGCTCTAATTTTTGCGGTAATAACTGGCTAAGTACTATCGTCGAATGGATTTCGGAGGA
 CGTGATGATGTTGAACTATACCCATGAAAAACCCATCACAACAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG227927 representing NM_001145851
Red=Cloning site Green=Tags(s)

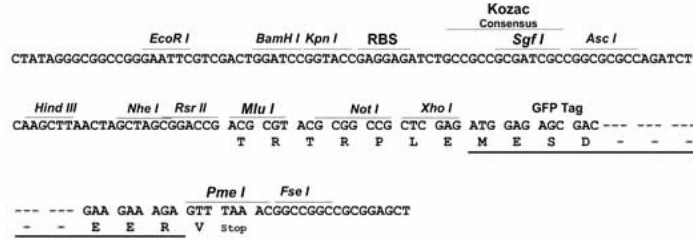
MALVLGSLLLLGLCGNSFSGGQPSSTDAPKAWNYELPATNYETQDSHKAGPIGILFELVHIFLYVVQPRD
FPEDTLRKFQKAYESKIDYDKIVVYEAGIILCCVLGLLFIILMPLVGYFFCMCRCCNKCGGEMHQKQKE
NGPFRLKCF AISLLVICIIISIGIFYGFVANHQVRTRIKRSRKLADSNFKDLRTLLNETPEQIKYILAQY
NTTKDKAFTDLNSINSVLGGGILDRLRPNIIPVLDEIKSMATAIKETKEALENMNSTLKSLHQSTQLSS
SLTSVKTSRLRSSLNDPLCLVHPSSSETCNSIRLSLSQLNSNPELRQLPPVDAELDNVNNVLRDLDGLVQQ
GYQSLNDIPDRVQRQTTTVVAGIKRVLNSIGSDIDNVTQRLPIQDILSAFVSVYVNNTESYIHRNLPLEE
YDSYWWLGGVLVICSLLTLIVIFYLGLLCGVCYDRHATPTTRGCVSNTGGVFLMVGVLGSLFCWILMI
IVVLTFFVGFANVEKLICEPYTSKELFRVLDTPYLLNEDWEYVLSGKLFNKSKMKLTFEQVYSDCKKNRGT
YGTLHLQNSFNISEHLNINEHTGSISSSELESKVNINIFLLGAAGRKNLQDFAACGIDRMNYDSYLAQTG
KSPAGVNLISFAYDLEAKANSLPPGNLRNSLKRDAQTIKTIHQQRVLPVIEQSLSTLYQSVKILQRTGNGL
LERVTRILASLDFANF ITNNTSSVIIIEETKKGRTIIGYFEHYLQWIEFSISEKVASCKPVATALDTAV
DVFLCSYIIDPLNLFWFGIGKATVFLPALIFAVKLAKYRRMSEDVYDDVETIPMKNPSQH

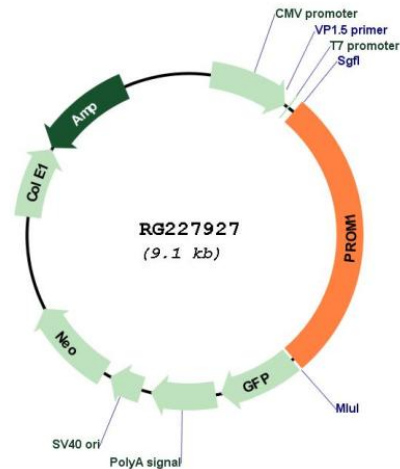
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_001145851

ORF Size: 2499 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_001145851.2](#)

RefSeq Size: 3881 bp

RefSeq ORF: 2502 bp

Locus ID: 8842

UniProt ID: [O43490](#)

Cytogenetics: 4p15.32

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

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]