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Product datasheet for RC221611

CD133 (PROM1) (NM_006017) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD133 (PROM1) (NM_006017) 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)

ORF Nucleotide Sequence:

>RC221611 representing NM_006017
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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ATGGCCCTCGTACTCGGCTCCCTGTTGCTGCTGGGGCTGTGCGGGAACTCCTTTTCAGGAGGGCAGCCTT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221611 representing NM_006017
Red=Cloning site Green=Tags(s)

MALVLGSLLLLGLCGNSFSGGQPSSTDAPKAWNYELPATNYETQDSHKAGPIGILFELVHIFLYVVQPRD
FPEDTLRKFLQKAYESKIDYDKPETVILGLKIVYYEAGIILCCVLGLLFIILMPLVGYFFCMCRCCNKCG
GEMHQRQKENGPFLRKCFAISLLVICIIISIGIFYGFVANHQVRTRIKRSRKLADSNFKDLRTLLNETPE
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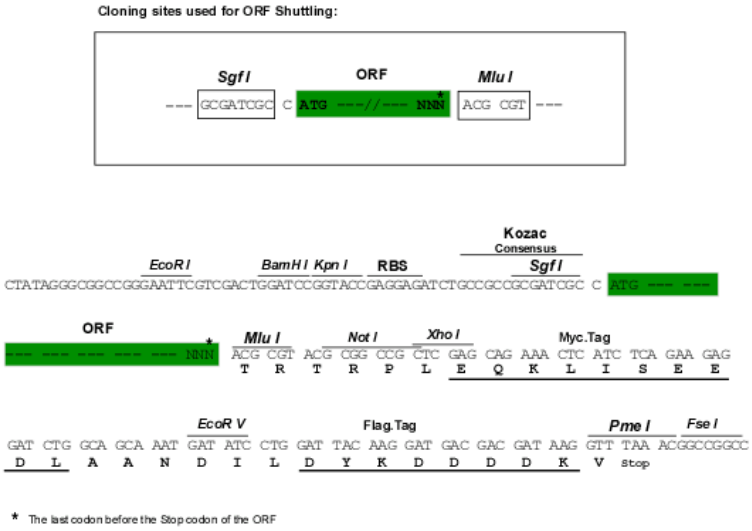
VATALDTAVDVFLCSYIIDPLNLFWFGIGKATVFLLPALIFAVKLAKYYRRMDSEDVYDDVETIPMKNME
NGNNGYHKDHVYGIHNPVMTSPSQH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3359_e03.zip

Restriction Sites: SgfI-MluI

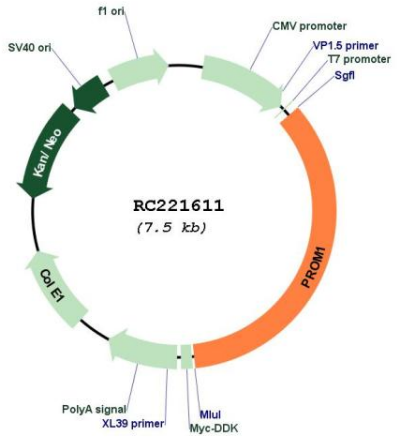
Cloning Scheme:



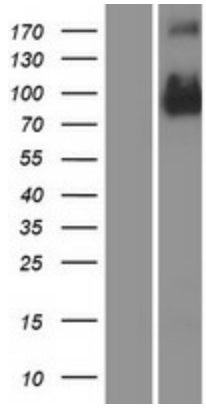
ACCN:	NM_006017
ORF Size:	2595 bp
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_006017.3
RefSeq Size:	3794 bp
RefSeq ORF:	2598 bp
Locus ID:	8842
UniProt ID:	O43490
Cytogenetics:	4p15.32
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
MW:	97 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]

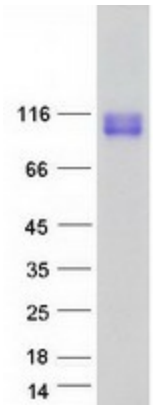
Product images:



Circular map for RC221611



Western blot validation of overexpression lysate (Cat# [LY416886]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221611 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PROM1 protein (Cat# [TP321611]). The protein was produced from HEK293T cells transfected with PROM1 cDNA clone (Cat# RC221611) using MegaTran 2.0 (Cat# [TT210002]).

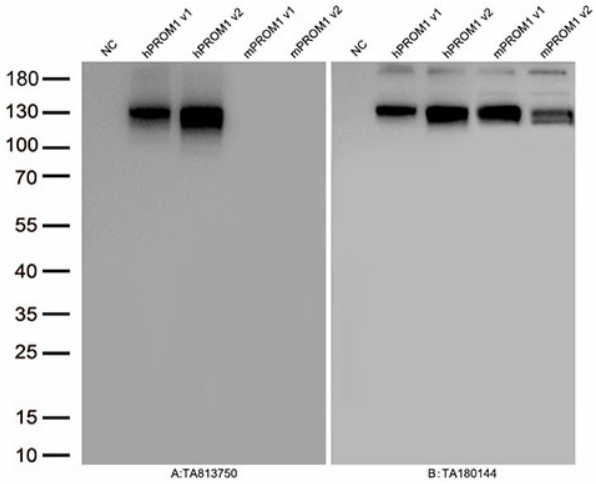
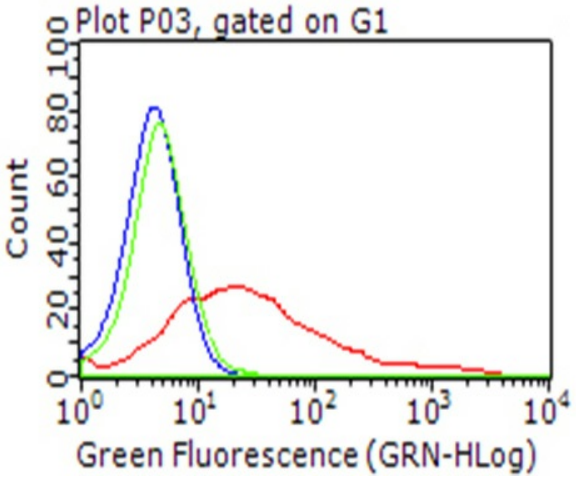


Figure A, Western blot analysis of overexpressed lysates (25ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], NC) , human PROM1 plasmid (RC221611, hPROM1 v1), human PROM1 plasmid ([RC227854], hPROM1 v2), mouse PROM1 plasmid ([MR225613], mPROM1 v1), mouse PROM1 plasmid ([MR225615], mPROM1 v2) using anti-PROM1 antibody [TA813750] (1:500). Figure B, Western blot analysis of the same samples as figure A with anti-DDK antibody ([TA180144], 1:1000)



Flow cytometric analysis of living 293T cells transfected with PROM1 overexpression plasmid (RC221611), Red)/empty vector ([PS100001], Blue) using anti-PROM1 antibody ([TA813750]). Cells incubated with a non-specific antibody (Green) were used as isotype control. (1:100)