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Product datasheet for RC227470

CD51 (ITGAV) (NM_001144999) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD51 (ITGAV) (NM_001144999) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD51
Synonyms:	CD51; MSK8; VNRA; VTNR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC227470 representing NM_001144999
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCTAGGCACCCTCCTTCTGATCCTGTACATCTTAATGTTGTGCCGGATGTTTCTTCTCGTGGGAG
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GCAATTCGACGAGCACTGTTTCTCTACAGCAGGTCCCCAAGTCACTCCAAGAACATGACTATTTCAAGGG
GGGGACTGATGCAGTGTGAGGAATTGATAGCGTATCTGCGGGATGAATCTGAATTTAGAGACAAACTCAC
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Protein Sequence:

>RC227470 representing NM_001144999
Red=Cloning site Green=Tags(s)

MLLGTLLLILYILMLCRMFLLVGAPKANTTQPGIVEGGQVLKCDWSSTRRCQPIEFDATGNRDYAKDDPL
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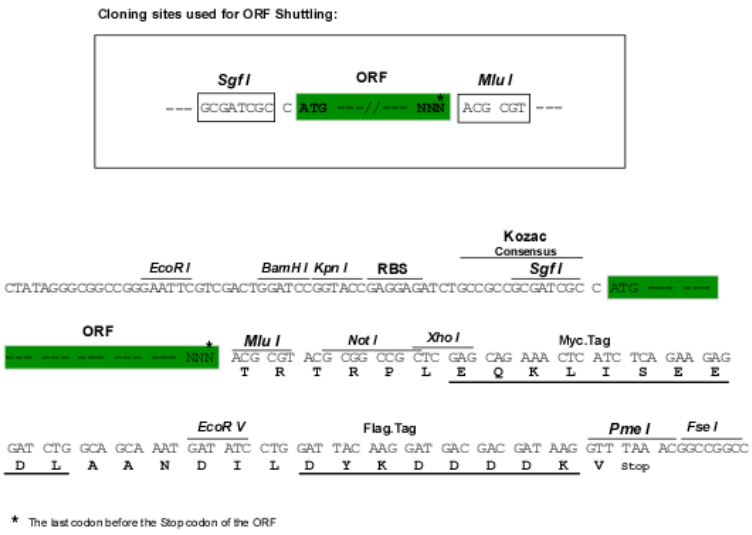
PQEEQEREQLQPHENGEGNSET

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4428_c04.zip

Restriction Sites: SgfI-MluI

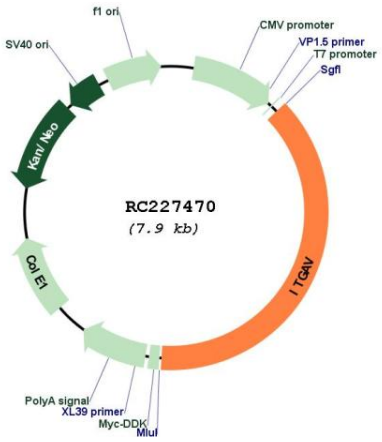
Cloning Scheme:



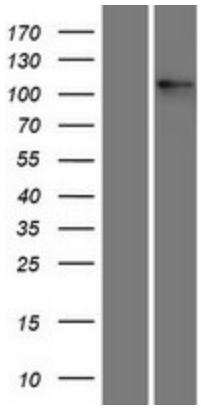
ACCN:	NM_001144999
ORF Size:	3006 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001144999.2, NP_001138471.1
RefSeq ORF:	3009 bp

Locus ID:	3685
UniProt ID:	P06756
Cytogenetics:	2q32.1
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer
MW:	111 kDa
Gene Summary:	The product of this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha subunit and a beta subunit that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha V subunit. This subunit associates with beta 1, beta 3, beta 5, beta 6 and beta 8 subunits. The heterodimer consisting of alpha V and beta 3 subunits is also known as the vitronectin receptor. This integrin may regulate angiogenesis and cancer progression. Alternative splicing results in multiple transcript variants. Note that the integrin alpha 5 and integrin alpha V subunits are encoded by distinct genes. [provided by RefSeq, Oct 2015]

Product images:



Circular map for RC227470



Western blot validation of overexpression lysate (Cat# [LY428633]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227470 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).