

Product datasheet for **RC204193**

Integrin beta 7 (ITGB7) (NM_000889) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin beta 7 (ITGB7) (NM_000889) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin beta 7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC204193 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGGCTTTGCCAATGGTCCTTGTGTTTGTCTGCTGGTCTGAGCAGAGGTGAGAGTGAATTGGACGCCA
 AGATCCCATCCACAGGGGATGCCACAGAATGGCGGAATCCTCACCTGTCCATGCTGGGGTCTGCCAGCC
 AGCCCCCTCCTGCCAGAAGTGCATCCTCTCACACCCAGCTGTGCATGGTGCAAGCAACTGAACTTCACC
 GCGTCGGGAGAGGCGGAGGCGCGGCGCTGCGCCGACGAGAGGAGCTGCTGGCTCGAGGCTGCCCGCTGG
 AGGAGCTGGAGGAGCCCCGCGGCCAGCAGGAGGTGCTGCAGGACCAGCCGCTCAGCCAGGGCGCCCGCG
 AGAGGGTGCCACCCAGCTGGCGCCGACGCGGTCCGGGTACGCTGCGGCCTGGGAGCCCCAGCAGCTC
 CAGGTCGCTTTCCTTCGTGCTGAGGGATACCCGGTGGACCTGTACTACCTTATGGACCTGAGCTACTCCA
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 CCCTGACGGGGACGCACAAGCCTTCGAGCGGGAGGTGGGGCGCCAGAGTGTGTCCGGCAATCTGGACTC
 GCCTGAAGGTGGCTTCGATGCCATTCTGCAGGCTGCACCTGCCAGGAGCAGATTGGCTGGAGAAATGTG
 TCCCGGCTGCTGGTGTCACTTCAGACGACACATTCATACAGCTGGGGACGGGAAGTTGGGCGGCATTT
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 CCCTTCTGTGGGTGAGTACCCAGGCCCTCTCTGCAGCAAATATCCAGCCCATCTTTGCTGTACCAGT
 GCCGCACTGCCTGTCTACCAGGAGCTGAGTAACTGATTCCTAAGTCTGCAGTTGGGAGCTGAGTGAGG
 ACTCCAGCAACGTGGTACAGCTCATCATGGATGCTTATAATAGCCTGTCTTCCACCGTGACCCCTTGAACA
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 AAGGCTGAGGATCGAGGACAGTGAACACGTCGAATCAACAGACGGTACTTCTGGGTTTCTCTCC
 AAGCCACCCACTGCCTCCAGAGCCCCATCTCTGAGGCTCCGGGCCCTTGGCTTCTCAGAGGAGCTGAT
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 TATGGTGTCTATGCGACCAATGCCAGGCTGCAAGACACCATGCGAGAGACACCGGGACTGTGCAGAGT
 GTGGGGCCTTCAGGACTGGCCACTGGCCACCAACTGCAGTACAGCTTGTGCCCATACCAATGTGACCCCT
 GGCCTTGGCCCTATCTTGGATGATGGCTGGTGCAAGAGCGGACCCTGGACAACCAAGCTGTTCTTCTTC
 TTGGTGGAGGATGACGCCAGAGGACGGTCTGCTCAGAGTGAGACCCCAAGAAAAGGGAGCAGACCACA
 CGCAGGCCATTGTGCTGGGCTGCGTAGGGGACATCGTGGCAGTGGGGCTGGGGCTGGTCTGGCTTACCG
 GCTCTCGGTGAAATCTATGACCGCCGGGAATACAGTCGCTTTGAGAAGGAGCAGCAACAACCTCAACTGG
 AAGCAGGACAGTAATCCTCTCTACAAAAGTGCCATCACACCACCATCAATCCTCGCTTTCAGAGGCGAG
 ACAGTCCCACTCTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204193 protein sequence
 Red=Cloning site Green=Tags(s)

MVALPMVLVLLLVL SRGESELD AKIPSTGDATEWRNPHLSMLGSCQPAPSCQKCILSHPSCAWCKQLNFT
 ASGEAEARRCARREELLARGCPL EEELEPRGQQEVLQDQPLSQGARGEGATQLAPQRVRLRPGEPOQL
 QVRFLRAEGYPVDLYLMDLSYMKDDL ERVRLGHALLVRLQEVTHSVRIGFGSFVDKTVLPFVSTVPS
 KLRHPCPTRLERCQSPFSFHHVLSLTGDAQAFEREVGRQSVSGNLDSP EGGFDAILQAALCQEIQIWRNV
 SRLLVFTSDDTFHTAGDGKLG GIFMPSDGHCHLDSNGLYSRSTEFDYP SVGQVAQALSAANIQPIFAVTS
 AALPVYQELSKLIPKSAVGELSEDSSNVVQLIMDAYNSLSSTVTL EHSLLPPGVHISYESQCEGPEKREG
 KAEDRGQCNHVRINQTVTFWVSLQATHCLPEPHLLRLRALGFSEELIVELHTL CDCNCSDTQPQAPHCS
 DGGHLQCGVCSCAPGRLGRLCECSVAELSSPDLESGCRAPNGTGPLCSGKGHCQCGRCSGSSGHLCE
 CDDASCE RH EILCGGFGRCQCGVCHCHANRTGRACECSGDMDS CISP EGGGLCSGHGRCKNRCQCLDGY
 YGALCDQCPGCKTPCERHRDCAECGAFRTGPLATNCSTACAHTNVT LALAPILDDGWCKERTLDNQLFFF
 LVEDDARGTVVLRVRPQEKGADHTQAI VLGCVGGIVAVGLGLV LAYRLSVEIYDRREYSRFEKEQQQLNW
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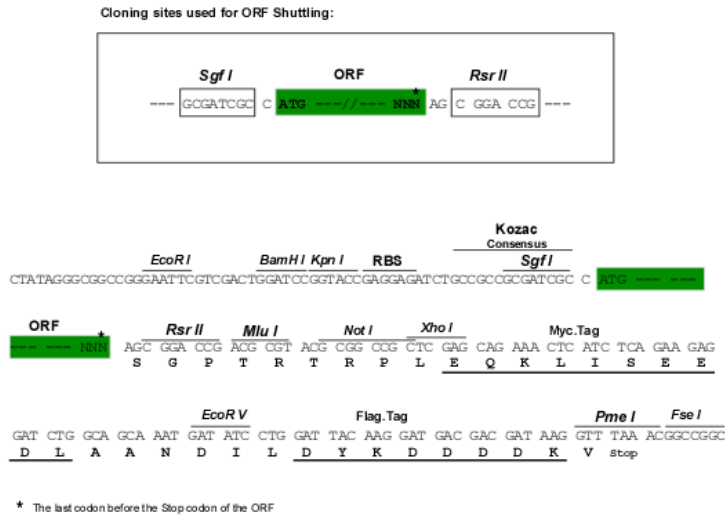
SGP TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6184_c10.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_000889

ORF Size: 2394 bp

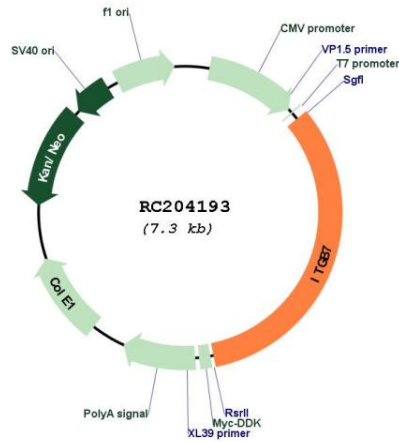
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

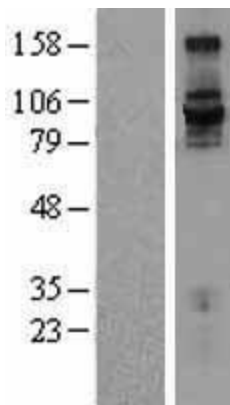
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_000889.3
RefSeq Size:	2878 bp
RefSeq ORF:	2397 bp
Locus ID:	3695
UniProt ID:	P26010
Cytogenetics:	12q13.13
Domains:	INB, PSI
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Regulation of actin cytoskeleton
MW:	86.9 kDa
Gene Summary:	This gene encodes a protein that is a member of the integrin superfamily. Members of this family are adhesion receptors that function in signaling from the extracellular matrix to the cell. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. The encoded protein forms dimers with an alpha4 chain or an alphaE chain and plays a role in leukocyte adhesion. Dimerization with alpha4 forms a homing receptor for migration of lymphocytes to the intestinal mucosa and Peyer's patches. Dimerization with alphaE permits binding to the ligand epithelial cadherin, a calcium-dependent adhesion molecule. Alternate splicing results in multiple transcript variants. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Sep 2013]

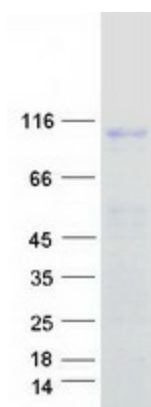
Product images:



Circular map for RC204193



Western blot validation of overexpression lysate (Cat# [LY400325]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204193 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGB7 protein (Cat# [TP304193]). The protein was produced from HEK293T cells transfected with ITGB7 cDNA clone (Cat# RC204193) using MegaTran 2.0 (Cat# [TT210002]).