

## Product datasheet for **RC227884**

### ITGA7 (NM\_001144996) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ITGA7 (NM_001144996) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ITGA7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227884 representing NM_001144996 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGGGGCTCGGAGCCGCGACCCCTGGGGGGCCTCCGGGATTTGCTACCTTTTTGGCTCCCTGCTCG  
TCGAACTGCTCTTCTCACGGGCTGTGCGCTTCAATCTGGACGTGATGGGTGCCTTGC CGCAAGGAGGGCGA  
GCCAGGCAGCCTCTTCGGCTTCTCTGTGGCCCTGCACCGCAGTTGCAGCCCCGACCCAGAGCTGGCTG  
CTGGTGGGTGCTCCCCAGGCCCTGGCTCTTCTGGGCAGCAGGCGAATCGCACTGGAGGCCCTCTTCGCTT  
GCCCGTTGAGCCTGGAGGAGACTGACTGTACAGAGTGGACATCGACAGGGAGCTGATGCAAAAAGGA  
AAGCAAGGAGAACCAGTGGTTGGGAGTCAAGTGTTCGGAGCCAGGGCCTGGGGGCAAGATTGTTACCTGT  
GCACACCGATATGAGGCAAGGCAGCGAGTGGACCAGATCCTGGAGACGCGGGATATGATTGGTTCGCTGCT  
TTGTGCTCAGCCAGGACCTGGCCATCCGGGATGAGTTGGATGGTGGGGAATGGAAGTTCTGTGAGGGACG  
CCCCAAGGCCATGAACAATTTGGGTTCTGCCAGCAGGGCACAGCTGCCGCTTCTCCCCTGATAGCCAC  
TACCTCTCTTTGGGGCCCCAGGAACCTATAATTGGAAGGGCACGGCCAGGGTGGAGCTCTGTGCACAGG  
GCTCAGCGGACCTGGCACACCTGGACGACGGTCCCTACGAGGCGGGGGAGAGAAGGAGCAGGACCCCCG  
CCTCATCCCGTCCCTGCCAACAGCTACTTTGGCTTCTCTATTGACTCGGGGAAAGGTCTGGTGCCTGCA  
GAAGAGCTGAGCTTTGTGGCTGGAGCCCCCGCCAACCACAAGGGTGTGTGGTTCATCTGCGCAAGG  
ACAGCGCCAGTCGCTGGTGCCTGAGGTTATGCTGTCTGGGAGCGCCTGACCTCCGGCTTTGGCTACTC  
ACTGGCTGTGGCTGACCTCAACAGTGTGGCTGGCCAGACCTGATAGTGGGTGCCCCCTACTTCTTTGAG  
CGCCAAGAAGAGCTGGGGGGTGTGTATGTGTAAGTGAACAGGGGGGTCACTGGGCTGGGATCTCCC  
CTCTCCGGCTCTGCGGCTCCCCTGACTCCATGTTCCGGATCAGCCTGGCTGTCTGGGGACCTCAACCA  
AGATGGCTTTCCAGATATTGCAGTGGGTGCCCTTTGATGGTGTGGGAAAGTCTTCACTACCATGGG  
AGCAGCCTGGGGGTTGTGCGCAAACCTTACAGGTGTGGAGGGCAGGCTGTGGCATCAAGAGCTTCG  
GCTACTCCCTGTGAGGACGCTTGGATATGGATGGAAACCAATACCCTGACCTGCTGGTGGGCTCCCTGGC  
TGACACCGCAGTCTCTCAGGGCCAGACCCATCCTCCATGTCTCCCATGAGGTCTCTATTGCTCCACGA  
AGCATCGACCTGGAGCAGCCCAACTGTGCTGGCGCCACTCGGTCTGTGTGGACCTAAGGGTCTGTTTCA  
GCTACATTGCAGTCCCCAGCAGCTATAGCCCTACTGTGGCCCTGGACTATGTGTTAGATGCGGACACAGA



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CCGGAGGCTCCGGGGCCAGGTTCCCGTGTGACGTTCTGAGCCGTAACCTGGAAGAACCAAGCACCAG  
 GCCTCGGGCACCCTGTGGCTGAAGCACCAGCATGACCGAGTCTGTGGAGACGCCATGTTCCAGCTCCAGG  
 AAAATGTCAAAGACAAGCTTCGGGCCATTGTAGTGACCTTGTCTACAGTCTCCAGACCCCTCGGCTCCG  
 GCGACAGGCTCCTGGCCAGGGGCTGCCTCCAGTGGCCCCATCTCAATGCCACCAGCCAGCACCAG  
 CGGGCAGAGATCCACTTCTGAAGCAAGGCTGTGGTGAAGACAAGATCTGCCAGAGCAATCTGCAGCTGG  
 TCCGCGCCCGCTTCTGTACCCGGGTGAGCAGCAGGAAATCCAACCTCTGCCATGGATGTGGATGGAAC  
 AACACCGCTGTTTGCACGTAGTGGCAGCCAGTCATTGGCTGGAGCTGATGGTCAACCAACTGCCATCG  
 GACCCAGCCAGCCAGGCTGATGGGGATGATGCCCATGAAGCCAGCTCCTGGTCATGCTTCTGACT  
 CACTGCACTACTCAGGGGTCCGGGCCCTGGACCCTGCGGAGAAGCCACTCTGCCTGTCCAATGAGAATGC  
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 AGCACCTCCGGGATCAGCATTGAGACCACGGAAGTGGAGGTAGAGCTGCTGTTGGCCACGATCAGTGAGC  
 AGGAGTGCATCCAGTCTCTGCACGAGCCCGTGTCTTATTGAGCTGCCACTGTCCATTGCAGGAATGGC  
 CATTCCCAGCAACTCTTCTCTGTTGTTGGTGGGAGGAGCCATGCAGTCTGAGCGGGATGTG  
 GGCAGCAAGGTCAAGTATGAGGTCACGGTTTCCAACCAAGGCCAGTCGCTCAGAACCCTGGGCTCTGCCT  
 TCCTCAACATCATGTGGCCTCATGAGATTGCCAATGGGAAGTGGTTGCTGTACCAATGCAGGTTGAGCT  
 GGAGGGCCGGCAGGGGCTGGGCAGAAAGGGCTTTGCTCTCCAGGCCAACATCTCCACTGGATGTG  
 GACAGTAGGGATAGGAGGCGGGGAGCTGGAGCCACCTGAGCAGCAGGAGCCTGGTGGAGCGCAGGAGC  
 CCAGCATGTCTGGTGGCCAGTGTCTCTGCTGAGAAGAAGAAAACATCACCTGGACTGCGCCCGGGG  
 CACGGCAACTGTGTGGTGTTCAGCTGCCACTTACAGCTTTGACCGCGCGGCTGTGCTGCATGTCTGG  
 GGCCGTCTCTGGAACAGCACCTTCTGGAGGAGTACTCAGCTGTGAAGTCCCTGGAAGTATTGTCCGGG  
 CCAACATCACAGTGAAGTCTCCATAAAGAACTGATGCTCCGAGATGCCTCCACAGTATCCCAGTGT  
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 GCTGGGCTGCTGGTGTAGCACTGCTGGTGTCTGCTGTTGGAAGATGGGATTCTCAAACGGGCAAGC  
 ACCCCGAGGCCACCGTGCCTGAGTACCATGCGGTGAAGATTCTCGGGAAGACCGACAGCAGTTCGAAGGA  
 GGAGAAGACGGGCACCATCTGAGGAACAAGTGGGCAGCCCCGCGGGAGGGCCCGGATGCACACCCC  
 ATCCTGGTGTGACGGGCATCCCGAGCTGGGCCCGATGGGCATCCAGGGCCAGGCACCGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227884 representing NM\_001144996  
 Red=Cloning site Green=Tags(s)

MAGARSRDPWASGICYLFGSLLVELLFSRAVAFNLDVMGALRKEGEPGSLFGFSVALHRQLQPRPQSWL  
 LVGAPQALALPGQQANRTGGLFACPLSLEETDCYRVDIDQGADMQKESKENQWLGVSVRSQGGPKIVTC  
 AHRYEARQRVDQILETRDMIGRFVLSQDLAIRDELDDGGWKFCEGRPQGHEQFGFCQQTAAAFSPDSH  
 YLLFGAPGTYNWKGARVELCAQGSADLAHLDDGPYEAGGEKEQDPRLLIPVPANSYFGFSIDSGKLVRA  
 EELSFVAGAPRANHKGAVVILRKDSASRLVPEVMLSGERLTSFGYSLAVADLNSDGPDLIVGAPYFFE  
 RQEELGGAVVYVYLNQGGHWAGISPLRLCGSPDSMFGISLAVLGDNLQDGFPIAVGAPFDGDGKVFYHG  
 SSLGVVAKPSQVLEGEAVGKISFGYSLSGSLDMDGNQYPDLLVGLADTAVLFRARPILHVSHEVSIAPR  
 SIDLEQPNCAAGHSVCVLDLRFVSYIAVPSSYSPTVALDYVLDADTDRLRGQVPRVFTLSRNLLEPKHQ  
 ASGTVWLKHQHDRVCGDAMFQLQENVKDKLRAIVVTLYSLQTPRLRRQAPGQGLPPVAPILNAHQPTQ  
 RAEIHFLKQCGGEDKICQSNLQLVRARFCTRVSDTEFQPLPMDVDGTTALFALSGQPVIQLELMVTNLPS  
 DPAQPQADGDDAHEAQLLVMLPDSLHYSVGRALDPAEKPLCLSNENASHVECELGNPMKRGAVQVTFYLIL  
 STSGISIETTELEVELELLATISEQELHPVSARARVFIELPLSIAGMAIPQQLFFSGVVRGERAMQSERDV  
 GSKVKYEVTVSNQGQSLRTLGS AFLNIMWPHEIANGKWLLYPMQVELEGGQGPQKGLCSRPNLIHLDV  
 DSRDRRRRELEPPEQEPGERQEPSMSWVPVSSAEKKNITLDCARGTANCVVFSCLPLYSFDRAAVLHVW  
 GRLWNSTFLEEYSAVKSLEIVIVRANITVKSSIKNLMRLDASTVIPVMVYLDPMVAVVAEGVPWWVILLAVL  
 AGLLVALLVLLWKMGGFFKRAKHPEATVPQYHAKIPREDRQQFKEEKTGTLRNNWGSPPREGPDAHP  
 ILAADGHPGDPGHPGTA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8006\\_g02.zip](https://cdn.origene.com/chromatograms/mk8006_g02.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_001144996

**ORF Size:** 3423 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

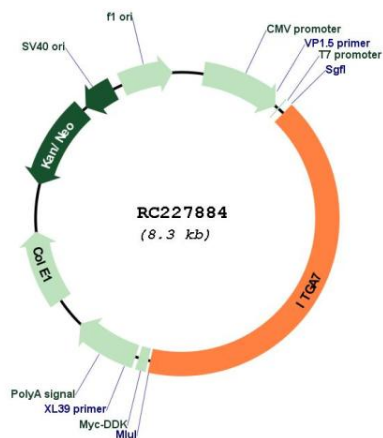
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001144996.2</a>
<b>RefSeq ORF:</b>	3426 bp
<b>Locus ID:</b>	3679
<b>UniProt ID:</b>	<a href="#">Q13683</a>
<b>Cytogenetics:</b>	12q13.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Regulation of actin cytoskeleton
<b>MW:</b>	124.69 kDa
<b>Gene Summary:</b>	<p>The protein encoded by this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. They mediate a wide spectrum of cell-cell and cell-matrix interactions, and thus play a role in cell migration, morphologic development, differentiation, and metastasis. This protein functions as a receptor for the basement membrane protein laminin-1. It is mainly expressed in skeletal and cardiac muscles and may be involved in differentiation and migration processes during myogenesis. Defects in this gene are associated with congenital myopathy. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Feb 2009]</p>

Product images:



Circular map for RC227884