

Product datasheet for RC211971

Integrin alpha 1 (ITGA1) (NM_181501) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin alpha 1 (ITGA1) (NM_181501) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin alpha 1
Synonyms:	CD49a; VLA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211971 representing NM_181501 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCTCGGCCCGCCCGCCAGGGTTCGCTGTCGCTGCTGGCTCCTCACTGTTGTTCTAC
GCTGCTGCGTATCATTCAATGTTGATGTGAAAAATCAATGACTTTCAGCGGCCCGTGGAAACATGTT
TGGATATACTGTTCAACAATATGAAAATGAAGAAGGAAAATGGGTGCTTATTGGTTCTCCGTTAGTTGGC
CAACCCAAAAACAGAAGTGGAGATGTCTATAAGTGTCCAGTTGGGAGAGGTGAATCATTACCTTGTGTA
AGTTGGATCTACCAAGTAAATACATCAATCCCAATGTCACAGAAGTAAAGGAGAATGACATTTGGATC
AACTTTAGTCACCAACCCAAATGGAGGATTTCTGGCTTGTGGCCCTTATATGCCTATAGATGTGGACAT
TTGCATTACAACTGGAATCTGTTCTGACGTCAGCCCCACATTTCAAGTCGTGAATCCATTGCCCTG
TACAAGAATGCAGCACTCACTGGACATAGTCATAGTGTGGATGGTTCCAACAGTATTTACCCATGGGA
CAGTGTACAGCTTTTTAAATGACCTTCTTGAAGAATGGATATTGGTCTAACAGACACAGGTTGGA
ATTGTACAGTATGGAGAAAACGTGACCCATGAGTTCAACCTCAATAAGTATTCTCCACCGAAGAGGTAC
TTGTTGCAGCAAAGAAAATAGTCCAGAGAGGTGGCCGACACTATGACAGCTCTTGAATAGACACAGC
AAGAAAGGAGGCATTACGGAAGCCCGGGTGGCCGAAGAGGAGTTAAAAAGTCATGGTTATTGTGACA
GATGGAGAGTCTCATGACAATCATCGACTGAAGAAGGTCATCCAAGACTGTGAAGATGAAAACATTCAC
GGTTTTCCATAGCTATTCTTGGCAGCTATAACCGAGGAAATTTAAGCACTGAAAAATTTGTGGAGGAAAT
AAAATCAATTGCAAGTGAACCCACTGAAAAGCATTCTTCAATGTCTCTGATGAATTGGCTCTAGTCACC
ATTGTTAAAACCTCTGGGAGAAAGAATATTTGCCCTGGAAGCCACAGCTGACCAGTCAGCAGCTTCATTTG
AAATGGAATGTCTCAGACTGGCTTCAGTGCTCATTATTCACAGGACTGGGTGATGCTTGGAGCAGTAGG
AGCCTATGATTGGAATGGAACAGTTGTCATGCAGAAGGCTAGTCAAATCATAATCCCTCGAAACACAACC
TTAATGTTGAGTCTACCAAAAAGAATGAACCGCTTGCTTCTTATTTAGGTTACTGTAAACTCTGCTA
CTGCTTCTCTGGAGATGTGCTCTATATTGCTGGACAGCCTCGGTACAATCATAACAGGCCAGGTCATTAT
CTACAGGATGGAAGATGGAACATCAAAATCTCCAGACGCTCAGTGGAACAGATTGGTCTCTACTTT



[View online »](#)

GGCAGTATTTTAAACAACAACTGACATTGACAAGGATTCTAATACTGACATTCTTCTAGTCGGAGCCCTA
TGTACATGGGAACAGAGAAGGAGGAGCAAGGAAAAGTGTATGTGTATGCTCTCAATCAGACAAGGTTTGA
ATATCAAAATGAGCCTGGAACCTATTAAGCAGACGTGCTGTTTCTCGGCAGCACAATTCATGCACAACA
GAAAACAAAAATGAGCCATGCGGGGCTCGTTTTGGAACGCAATTGCTGCTGTAAAAGACCTCAATCTTG
ATGGATTTAATGACATCGTGATAGGAGCTCCGCTGGAAGATGATCACGGGGGAGCTGTGTACATTTATCA
TGGAAAGTGGCAAGACTATAAGGAAAGAGTATGCACAACGTATCCATCAGGTGGGGATGGTAAGACACTG
AAATTTTTTGGCCAGTCTATCCACGGAGAAATGGATTTAAATGGTGACGGTCTGACAGATGTGACTATTG
GGGGCCTTGGTGGTGTGCCCTCTTCTGGTCCCGAGATGTGGCCGTAGTTAAAGTGACCATGAATTTTGA
GCCAAATAAAGTGAATATTCAAAAAGAAAACTGCCATATGGAGGGAAAAGGAAACAGTATGCATAAATGCT
ACAGTGTGTTTTGATGTGAAATTAAGTCTAAAGAAGACACGATTTATGAAGCTGATTTGCAGTACCGTG
TCACCCTAGATTCACTAAGACAAATATCACGAAGTTTTTCTCTGGAACCTCAAGAGAGAAAAGTTCAAAG
GAACATCACAGTTCGAAAATCAGAAATGCACTAAGCACTCCTTCTACATGTTGGACAAGCATGACTTTTCA
GACTCTGTGAGAATAACGTTGGACTTTAATCTTACCGATCCAGAAAATGGGCCTGTTCTTGATGATTCTC
TACCAAACCTCAGTACATGAATATATTCCCTTTGCCAAAGATTGTGAAAATAGGAAAAATGTATCTCAGA
CCTCAGCCTGCATGTCCGACCCTGAAAAGGACCTGCTGATTGTCCGATCCAGAAATGATAAGTTCAAC
GTTAGCCTCACAGTCAAAAATACAAAGGACAGTGCCTATAACACCAGGACAATAGTGCATTATTCTCCAA
ATCTAGTTTTTTCAGGAATTGAGGCTATCCAAAAGACAGTTGTGAATCTAATCATAATATCACATGTAA
AGTTGGATATCCCTTCTGAGAAGAGGAGAGATGGTAACTTTCAAAAATATTGTTTCAGTTTAAACACATCC
TATCTCATGGAAAATGTGACCATTTATTTAAGTGAACAAGTGACAGCGAAGAACCTCCTGAAACCTTT
CTGATAATGTAGTAAACATTTCTATCCCGGTAATAATGAAGTTGGACTACAGTTTTACAGCTCTGCAAG
TGAATACCACATTTCAATTGCTGCCAATGAGACAGTCCCTGAAGTTATTAATTCTACTGAGGACATTGGA
AATGAAATTAATATCTTCTACTTGATTAGAAAAAGTGGATCTTTTCCAATGCCAGAGCTTAAGCTGTCAA
TTTTATTCCCAATATGACATCAAAATGGTTACCCTGTGCTGTACCAACTGGATTGTCATCTTCTGAGAA
TGCAAACCTGCAGACCCCATATCTTTGAGGATCCTTTTCAAGTATCAACTCTGAAAAGAAAAATGACTACATCA
ACTGACCATCTCAAACGAGGCACAATTCTGGACTGCAATACATGTAAATTTGCTACCATCACATGTAATC
TCACTTCTTCTGACATCAGCCAAGTCAATGTTTCGCTTATCTTGTGAAAACCAACTTTTATAAAATCATA
TTTTTCCAGCTTAAATCTTACTATAAGGGGAGAACTTCGGAGTAAAAATGCATCTCTGGTTTTAAGTAGC
AGCAATCAAAAAGAGAGCTTGCTATTCAAATATCCAAAGATGGGCTACCGGGCAGAGTGCCATTATGGG
TCATCCTGCTGAGTGCTTTTCCCGATTGTTGCTGTTAATGCTGCTCATTTTAGCACTGTGGAAGATTGG
ATTCTTCAAAGACCACTGAAAAGAAAAATGGAGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211971 representing NM_181501
 Red=Cloning site Green=Tags(s)

MAPRRARPGVAVACCWLLTVVLRCCVSFNVVDVKNMSMTFSGPVEDMFGYTVQQYENEEGKWWLIGSPLVG
 QPKNRTGDVYKCPVGRGESLPCVKLDLPVNTSIPNVTEVKENMTFGSTLVTNPNNGFLACGPLYAYRCGH
 LHYYTGTICSDVSPTTFQVNSIAPVQECSTQLDIVIVLDGSNSIYPWDSVTAFLNDLLERMIDGPKQTQVG
 IVQYGENVTHEFNLNKYSSTEEVLVAAKIVQRGGRTMTALGIDTARKEAFTEARGARRGVKVMVIVT
 DGESHDNHRLKKVIQDCEDENIQRFSIAILGSYNRGNLSTEFVVEIKSIASEPTEKHFFNVSDALALVT
 IVKTLGERIFALEATADQSAASFEMEMSQTGFSAHYSQDWVMLGAVGAYDWNQVVMQKASQIIIPRNTT
 FNVESTKKNELASYLGYTVNSATASSGDVLYIAGQPRYNHTGQVIIYRMEDGNIKILQTLSSGEQIGSYF
 GSILTTTDDIDKDSNTDILLVGAPMYMGTEKEEQKVVYVYALNQRFEYQMSLEPIKQTCSSRQHNSCTT
 ENKNEPCGARFGTAIAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHSGKTIKREYAQRIPSGDGKTL
 KFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMNFEPNKVNIQKKNCHMEGKETVCINA
 TVCFDVKLKSKEDTIYEADLQYRVTLDSLQISRSFFSGTQERKVQRNITVRKSECTKHSFYMLDKHDFQ
 DSVRITLDFNLDPENGPVLDLSPNSVHEYIPFAKDCGNKEKCI SDLSLHVATTEKDLLIVRSQNDKFN
 VSLTVKNTKDSAYNTRTIVHYSPLVFSGIEAIQKDSCESNHNI TCKVGPFLRRGEMVTFKILFQNTS
 YLMENVTIYLSATSDSEPPETLSDNVNISI PVKYEVGLQFYSSASEYHISIAANETVPEVINSTEDIG
 NEINIFYLIRKSGSFPPELKLISFPNMTSNGYPVLYPTGLSSSENANCRPHIFEDPFSINSGKMTTS
 TDHLKRGITLDCNTCKFATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLNLTIRGELRSENASLVSS
 SNQKRELAIQISKDGLPGRVPLWVILLSAFAGLLLLMLLILALWKIGFFKRPLKMKMEK

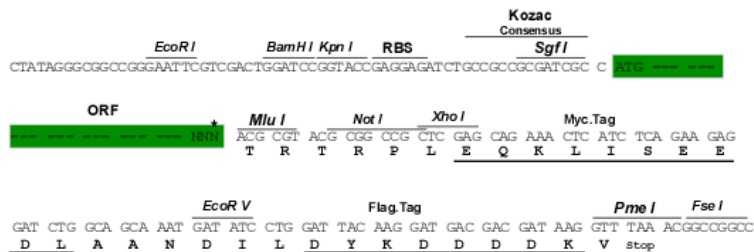
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



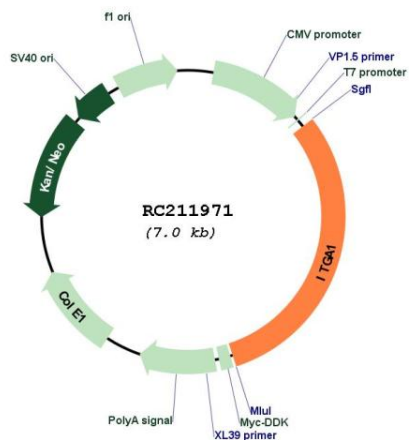
* The last codon before the Stop codon of the ORF

ACCN: NM_181501

ORF Size: 3537 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.
RefSeq:	NM_181501.2
RefSeq Size:	4811 bp
RefSeq ORF:	3540 bp
Locus ID:	3672
UniProt ID:	P56199
Cytogenetics:	5q11.2
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), Regulation of actin cytoskeleton
MW:	130.8 kDa
Gene Summary:	This gene encodes the alpha 1 subunit of integrin receptors. This protein heterodimerizes with the beta 1 subunit to form a cell-surface receptor for collagen and laminin. The heterodimeric receptor is involved in cell-cell adhesion and may play a role in inflammation and fibrosis. The alpha 1 subunit contains an inserted (I) von Willebrand factor type I domain which is thought to be involved in collagen binding. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC211971