

## Product datasheet for **RC215247**

### Integrin beta 1 (ITGB1) (NM\_133376) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin beta 1 (ITGB1) (NM_133376) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin beta 1
Synonyms:	CD29; FNRB; GPIIA; MDF2; MSK12; VLA-BETA; VLAB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC215247 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAATTTACAACCAATTTTCTGGATTGGACTGATCAGTTCAGTTTGTCTGTGTTTGTCTCAAACAGATG  
 AAAATAGATGTTTAAAAGCAAATGCCAAATCATGTGGAGAATGTATACAAGCAGGGCCAAATTTGGGGTG  
 GTGCACAATTCACATTTTACAGGAAGGAATGCCTACTTCTGCACGATGTGATGATTTAGAAGCCTTA  
 AAAAAGAAGGGTTGCCCTCCAGATGACATAGAAAAATCCAGAGGCTCCAAAGATATAAAGAAAAATAAAA  
 ATGTAACCAACCGTAGCAAAGGAACAGCAGAGAAGCTCAAGCCAGAGGATATTACTCAGATCCAACCACA  
 GCAGTTGGTTTTGCGATTAAGATCAGGGGAGCCACAGACATTTACATTAATAAAGAGAGCTGAAGAC  
 TATCCCATTGACCTCTACTACCTTATGGACCTGTCTTACTCAATGAAAGACGATTTGGAGAATGAAAAA  
 GTCTTGGAAACAGATCTGATGAATGAAATGAGGAGGATTACTTCGGAATTCAGAATTGGATTTGGCTCATT  
 TGTGAAAAGACTGTGATGCCTTACATTAGCACAAACACCAGCTAAGCTCAGGAACCCCTGCACAAGTGAA  
 CAGAACTGCACCAGCCATTTAGCTACAAAAATGTGCTCAGTCTTACTAATAAAGGAGAAGTATTTAATG  
 AACTTGTGGAAAACAGCGCATATCTGGAAATTTGGATTCCTCAGAAGGTGGTTTCGATGCCATCATGCA  
 AGTTGCAGTTTGTGGATCACTGATTGGCTGGAGGAATGTACACGGCTGCTGGTGTTCACAGATGCC  
 GGGTTTCACTTTGCTGGAGATGGGAACTTGGTGGCATTGTTTTACCAATGATGGACAATGTCACCTGG  
 AAAATAATATGTACACAATGAGCCATTATTATGATTATCCTTCTATTGCTCACCTGTCCAGAACTGAG  
 TGAAAAATAATTCAGACAATTTTGCAGTTACTGAAGAATTTACGCCTGTTTACAAGGAGCTGAAAAAC  
 TTGATCCCTAAGTCAGCAGTAGGAACATTATCTGCAAATCTAGCAATGTAATTCAGTTGATCATTGATG  
 CATACAATCCCTTCCCTCAGAAGTCAATTTGGAAAACGGCAAATGTCAGAAGGAGTAACAATAAGTTA  
 CAAATCTTACTGCAAGAACGGGGTGAATGGAACAGGGGAAAAATGGAAGAAAAATGTTCCAATATTTCCATT  
 GGAGATGAGGTTCAATTTGAAATTAGCATAAATCAAAATAAGTGTCCAAAAAAGGATTCTGACAGCTTTA  
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 AAGCGAAGGCATCCCTGAAAGTCCCAAGTGTGATGAAGGAAATGGGACATTTGAGTGTGGCGCGTGCAGG  
 TGCAATGAAGGGCGTGTGGTAGACATTGTGAATGCAGCACAGATGAAGTTAACAGTGAAGACATGGATG  
 CTTACTGCAGGAAAGAAAACAGTTCAGAAATCTGCAGTAAACAATGGAGAGTGCCTCTGCGGACAGTGTGT  
 TTGTAGGAAGAGGATAATACAAATGAAATTTATTCTGGCAAATCTGCGAGTGTGATAATTTCAACTGT  
 GATAGATCCAATGGCTTAATTTGTGGAGGAAATGGTGTTCGCAAGTGTCTGTGTGTGAGTGAACCCCA  
 ACTACACTGGCAGTGCATGTGACTGTTCTTTGGATACTAGTACTTGTGAAGCCAGCAACGGACAGATCTG  
 CAATGGCCGGGGCATCTGTGAGTGTGGTGTCTGTAAGTGTACAGATCCGAAGTTTCAAGGGCAAACGTGT  
 GAGATGTGTCAGACCTGCCTTGGTGTCTGTGCTGAGCATAAAGAAATGTGTTTCAGTGCAGAGCCTTCAATA  
 AAGGAGAAAAGAAAGACACATGCACACAGGAATGTTTCTATTTAACATTACCAAGGTAGAAAGTCGGGA  
 CAAATTACCCAGCCGGTCCAACCTGATCCTGTGTCCCATTGTAAGGAGAAGGATGTTGACGACTGTTGG  
 TTCTATTTTACGTATTCAGTGAATGGGAACAACGAGGTGATGGTTTCATGTTGTGGAGAATCCAGAGTGC  
 CCACTGGTCCAGACATCATTCCAATTGTAGCTGGTGTGGTGTGCTGGAATGTTCTTATTGGCCTTGCAAT  
 ACTGCTGATATGGAAGCTTTTAAATGATAATTCATGACAGAAGGGAGTTTGCTAAATTTGAAAAGGAGAAA  
 ATGAATGCCAAATGGGACACGGGTGAAAATCCTATTTATAAGAGTGCCGTAACTGTGGTCAATCCGA  
 AGTATGAGGGAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC215247 protein sequence  
Red=Cloning site Green=Tags(s)

MNLQPIFWIGLISSVCCVFAQTDENRCLKANAKSCGECIQAGPNCGWCTNSTFLQEGMPTSARCDLLEAL  
KKKGCPPDDIENPRGSKDIKKKNVNTNRSKGTAEKLPEDITQIQPQQLVLRRLRSGEPQFTFLKFKRAED  
YPIDLYLMDLSYSMKDDLENVKSLGTDLMNEMRRITSDFRIGFGSFVEKTVMPYISTTPAKLRNPCTSE  
QNCTSPFSYKNVLSLTNGGEVFNELVGKQRI SGNLDSPEGGFDAIMQVAVCGSLIGWRNVTRLLVFSTDA  
GFHFAGDGKLGGI VLPNDGQCHLENNMYTMSHYDYPSIAHLVQKLSENNIQTIFAVTEEFQPVYKELKN  
LIPKSAVGTL SANSSNVIQLIIDAYNSLSSEVILENGKLESGVTISYKSYCKNGVNGTGENGRKCSNISI  
GDEVQFEISITSNKCPKKDSDFKIRPLGFTEEVEVILQYICECECQSEGIPESPKCHEGNGTFECGACR  
CNEGRVGRHCECSTDEVNSEMDAYCRKENSSEICSNNGECVCGQCVCRKRDNTNEIYSGKFCECDNFNC  
DRSNGLICGGNGVCKCRVCECNPNYTGSACDCSLDTSTCEASNGQICNGRGI CECGVCKCTDPKFQGGTC  
EMCQTCLGVCAEHKECVQCRAFNGKEKDTCTQECSYFNITKVESRDKLPQPVQDPVSHCKEKDVDDCW  
FYFTYSVNGNNEVMHVVENPECP TGPDIIPVAGVVAGIVLIGLALLLIWKLLMI IHDRREFAKFEKEK  
MNAKWD TGENPIYKSAVTTVVNPKYEGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6140\\_a12.zip](https://cdn.origene.com/chromatograms/mk6140_a12.zip)

**Restriction Sites:** Sgfl-Mlul

## Cloning Scheme:



ACCN: NM\_133376

ORF Size: 2394 bp

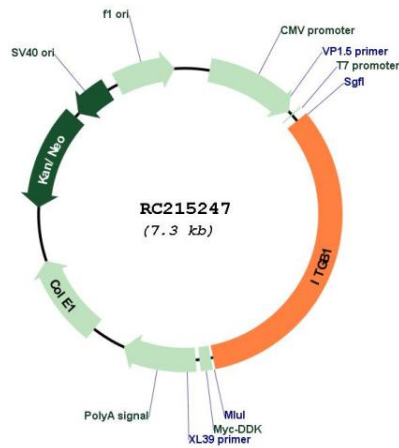
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

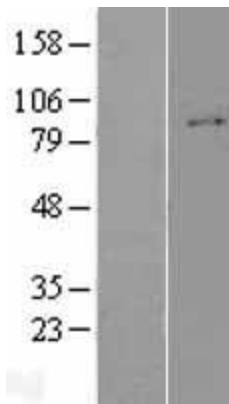
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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_133376.2</a>
<b>RefSeq Size:</b>	3794 bp
<b>RefSeq ORF:</b>	2397 bp
<b>Locus ID:</b>	3688
<b>UniProt ID:</b>	<a href="#">P05556</a>
<b>Cytogenetics:</b>	10p11.22
<b>Domains:</b>	INB, PSI
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Axon guidance, Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Pathogenic Escherichia coli infection, Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer
<b>MW:</b>	88.4 kDa
<b>Gene Summary:</b>	<p>Integrins are heterodimeric proteins made up of alpha and beta subunits. At least 18 alpha and 8 beta subunits have been described in mammals. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This gene encodes a beta subunit. Multiple alternatively spliced transcript variants which encode different protein isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>

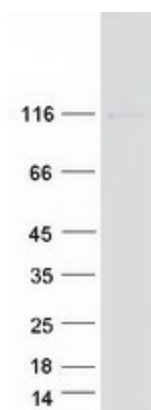
Product images:



Circular map for RC215247



Western blot validation of overexpression lysate (Cat# [LY408839]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215247 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGB1 protein (Cat# [TP315247]). The protein was produced from HEK293T cells transfected with ITGB1 cDNA clone (Cat# RC215247) using MegaTran 2.0 (Cat# [TT210002]).