

## Product datasheet for RC222614

### CD41 (ITGA2B) (NM\_000419) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD41 (ITGA2B) (NM_000419) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD41
Synonyms:	BDPLT2; BDPLT16; CD41; CD41B; GP2B; GPIIb; GT; GT1; GTA; HPA3; PPP1R93
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222614 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCCAGAGCTTTGTGTCCACTGCAAGCCCTCTGGCTTCTGGAGTGGGTGCTGCTCTTGGGACCTTGTGCTGCCCTCCAGCCTGGCCCTTGAACCTGGACCCAGTGCAGCTCACCTTCTATGCAGGCCCAATGGCAGCCAGTTTGGATTTTCACTGGACTTCCACAAGGACAGCCATGGGAGAGTGGCCATCGTGGTGGGCGCCCGCGGACCCTGGGCCAGCCAGGAGGAGACGGGCGGCGTGTCTGTGCCCTGGAGGGCCGAGGGCGCCAGTGGCCCTCGTGTCTTTGACCTCCGTGATGAGACCCGAAATGTAGGCTCCCAAACCTTTACAACCTTCAAGGCCCGCAAGGACTGGGGCGTCCGGTGTGAGTGGAGCGACGTCATTGTGGCCTGCGCCCCGTCAGCACTGGAACGTCCTAGAAAAGACTGAGGAGGCTGAGAAGACGCCCGTAGGTAGCTGCTTTTTGGCTCAGCCAGAGAGCGGCCCGCGCCGAGTACTCCCCCTGTGCGGGAAACACCCTGAGCCGATTTACGTGGAAAATGATTTTAGCTGGGACAAGCGTTACTGTGAAGCGGGCTTCCAGCTCCGTGGTCACTCAGGCCGGAAGCTGGTGTGGGGCTCCTGGCGCTATTATTTCTTAGGTCTCCTGGCCAGGCTCCAGTTGCGGATATTTCTCGAGTTACCGCCAGGCATCCTTTGTGGCACGTGTCTCCAGAGCCTCTCCTTTGACTCCAGCAACCCAGAGTACTTCGACGGCTACTGGGGTACTCGGTGGCCGTGGGCGAGTTCGACGGGATCTCAACTACAGAAATATGTCGTGGTGGCCCACTTGGAGCTGGACCTGGGAGCGGTGGAAATTTGGATTCTACTACCAGAGGCTGCATCGGCTGCGCGGAGAGCAGATGGCGTTCGATTTTGGGCATTGAGTGGTGTGCTGACGTC AACGGGATGGGAGGCATGATCTGCTGGTGGGCGCTCCACTGTATATGGAGAGCCGGGAGACGAAAACCTGGCCGAAGTGGGCGTGTGTATTTGTTCTGTCAGCCGCGAGGCCCCACGCGTGGTGGCCAGCCTCTGCTGACTGGCACACAGCTCTATGGGCGATTGCGCTCTGCCATCGCACCCCTGGGCGACCTCGACCGGATGGTACAATGACATTGACAGTGGCTGCCCTACGGGGTCCAGTGGCCGGGGCCAAGTCTGGTGTCTGGTCCAGAGTGGGGCTGAGGTACGTCCTCCAGGTCCTGGACAGCCCTTCCCCACAGGCTCTGCCTTTGGCTTCTCCCTTCGAGGTGCCGTAGACATCGATGACAACGGATACCCAGACCTGATCGTGGGAGCTTACGGGGCAACCAGGTGGCTGTGTACAGAGCTCAGCCAGTGGTGAAGCCCTCTGTCCAG



CTACTGGTGAAGATTCCTGAATCCTGCTGTGAAGAGCTGTGTCTACCTCAGACCAAGACACCCGTGA  
 GCTGCTTCAACATCCAGATGTGTGTTGGAGCCACTGGGCACAACATTCCTCAGAAGCTATCCCTAAATGC  
 CGAGCTGCAGCTGGACCGGCAGAAGCCCCGCCAGGGCCGGCGGGTGTGCTGCTGGGCTCTCAACAGGCA  
 GGCACCACCTGAACCTGGATCTGGGCGGAAAGCACAGCCCCATCTGCCACACCACCATGGCCTTCTTC  
 GAGATGAGGCAGACTCCGGGACAAGCTGAGCCCCATTGTGCTCAGCCTCAATGTGTCCCTACCGCCAC  
 GGAGGCTGGAATGGCCCCTGTGCTGTGCTGCATGGAGACACCCATGTGCAGGAGCAGACACGAATCGTC  
 CTGGACTGTGGGAAGATGACGTATGTGTGCCAGCTTACCTCACTGCCAGCGTGACGGGCTCCCCGC  
 TCCTAGTTGGGGCAGATAATGTCCTGGAGCTGCAGATGGACGCAGCCAACGAGGGCGAGGGGCCTATGA  
 AGCAGAGCTGGCCGTGCACCTGCCCCAGGGCGCCCACTACATGCGGGCCCTAAGCAATGTCGAGGGCTTT  
 GAGAGACTCATCTGTAATCAGAAGAAGGAGAATGAGACCAGGGTGGTGTGTGTGAGCTGGGCAACCCCA  
 TGAAGAAGAACGCCAGATAGGAATCGCGATGTTGGTGTGAGCGTGGGAATCTGGAAGAGGCTGGGGAGTC  
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 ACCCTCTCAAGGTGGACTGGGGCTGCCATCCCCAGCCCTCCCCATTACCCGGCCATCACAAGCG  
 GGATCGCAGACAGATCTTCTGCCAGAGCCGAGCAGCCCTCGAGGCTTCAGGATCCAGTTCTCGTAAGC  
 TGCGACTCGGCGCCCTGTACTGTGGTGCAGTGTGACCTGCAGGAGATGGCGCGGGCAGCGGGCCATGG  
 TCACGGTGTGGCCTTCTGTGGCTGCCAGCCTCTACCAGAGGCTCTGGATCAGTTTGTGCTGCAGTC  
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 CAGGTGTGGACACAGCTGCTCCGGGCCTTGGAGGAGAGGGCCATTCCAATCTGGTGGTGTGGTGGGTG  
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 CCGGCCACCCCTGGAAGAAGATGATGAAGAGGGGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC222614 protein sequence  
 Red=Cloning site Green=Tags(s)

MARALCPLQALWLEWLLLLGPCAAPPAWALNLDPVQLTFYAGPNGSQFGFSLDFHKDSHGRVAIVVGA  
 PRTLGPSEETGGVFLCPWRAEQQCPSELLFDLRDETRNVGSQTLQTFKARQGLGASVVSWSVDIVACAP  
 WQHWNVLEKTEEAETKTPVGSFLAQPESSRRRAEYSPCRGNTLSRIYVENDFSWDKRYCEAGFSSVVTQAG  
 ELVLAGPGGYYFLGLLAQAPVADIFSSYRPGILLWHVSSQSLSFDSNPEYFDGYWGYSVAVGEFDGLN  
 TTEYVVGAPTWSWTLGAVEILDSYYQLHRLRGEQMASYFGHSVAVTDVNGDGRHDLVGAPLYMESRAD  
 RKLAEVGRVYFLQPRGPHALGAPSLLLTGTQLYGRFGSAIAPLDLDRDGYNDIAVAAPYGGPSGRGQV  
 LVFLGQSEGLRSRPSQVLDSPFPTGSAGFSLRGAVDIDDNGYPDLIVGAYGANQVAVYRAQPVVKASVQ  
 LLVQDSLNPVAVKSCVLPQTKTPVSCFNIMCVGATGHNIPQKLSLNAELQLDRQKPRQRRVLLLSGQQA  
 GTTLNLDLGGKHSPICHTTMAFLRDEADFRDKLSPIVLSLNVSLPPTTEAGMAPAVVLHGDTHVQEQRIV  
 LDCGEDDVCVPQLQLTASVTGSPLLVGADNVLELQMDAANEGEREYAEELAVHLPQGAHYMRALSNEVEF  
 ERLICNQKKNENETRVVLCGPNMKNQIAMIAMLVSVGNLEEAGESVSFQLQIRSKNSQNPNSKIVLLD  
 VPVRAEAQVELRGNSFPASLVAAEEGEREQNSLDSWGPKEHTYELHNNPGPTVNLHLHLHLPGQSQP  
 SDLLYILDIQPQGLQCFPPQPPVNLKVDWGLPIPSPSPIHPAHHKRRRQIFLPEPEQPSRLQDPVLVS  
 CDSAPCTVVQCDLQEMARGQRAMVTVLAFWLPSLYQRPLDQFVLQSHAWFNVSLSLPAVPPPLSLPRGEA  
 QVWTQLLRALEREAPIIWWVLVGLGLLLLTILVLAAMWVGFVKRNRPPLEEDDEEGE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6680\\_h06.zip](https://cdn.origene.com/chromatograms/mk6680_h06.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_000419

**ORF Size:** 3117 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.

**RefSeq:** [NM\\_000419.5](#)

**RefSeq Size:** 3334 bp

**RefSeq ORF:** 3120 bp

**Locus ID:** 3674

**UniProt ID:** [P08514](#)

**Cytogenetics:** 17q21.31

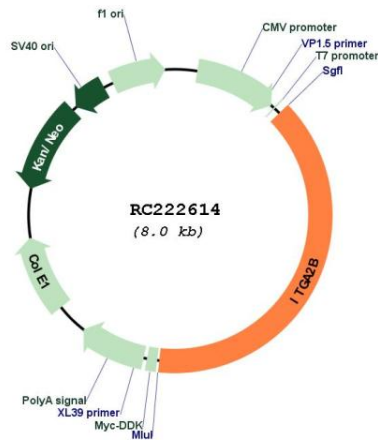
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer

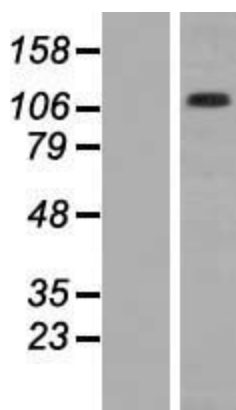
**MW:** 113.4 kDa

**Gene Summary:** This gene encodes a member of the integrin alpha chain family of proteins. The encoded preproprotein is proteolytically processed to generate light and heavy chains that associate through disulfide linkages to form a subunit of the alpha-IIb/beta-3 integrin cell adhesion receptor. This receptor plays a crucial role in the blood coagulation system, by mediating platelet aggregation. Mutations in this gene are associated with platelet-type bleeding disorders, which are characterized by a failure of platelet aggregation, including Glanzmann thrombasthenia. [provided by RefSeq, Jan 2016]

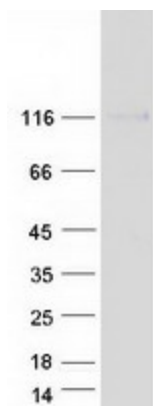
**Product images:**



Circular map for RC222614



Western blot validation of overexpression lysate (Cat# [LY424734]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222614 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGA2B protein (Cat# [TP322614]). The protein was produced from HEK293T cells transfected with ITGA2B cDNA clone (Cat# RC222614) using MegaTran 2.0 (Cat# [TT210002]).