

## Product datasheet for RC214408

### Integrin alpha 4 (ITGA4) (NM\_000885) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin alpha 4 (ITGA4) (NM_000885) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin alpha 4
Synonyms:	CD49D; IA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214408 representing NM_000885 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTGGGAAGCGAGGCGGAACCCGGCCCCGAAGGGCCGCGTCCGGGAGACGGTGATGCTGTTGC  
TGTGCCTGGGGTCCCGACCGGCCGCCCTACAACGTGGACACTGAGAGCGCGTCTTTACCAGGGCCC  
CCACAACACGCTGTTGGCTACTCGGTCGTGCTGCACAGCCACGGGGCGAACCGATGGCTCCTAGTGGT  
GCGCCACTGCCAACTGGCTCGCAACGCTTCAGTGATCAATCCCGGGGCGATTTACAGATGCAGGATCG  
GAAAGAATCCCGCCAGACGTGCGAACAGCTCCAGCTGGGTAGCCCTAATGGAGAACCTTGTGAAAGAC  
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GTTGCTATGGAGTGCCCCCTGATTTACGAACAGAAGTGAAGTAAAGAAATAGTCCCGTGTATCAAGATTA  
TGTGAAAAATTTGGAGAAAATTTGCATCATGTCAAGCTGGAATATCCAGTTTTTACACAAAGGATTTA  
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ACCCATGCAGAGCACCATCAGAGAGGAAGGAGAGTGTGGTGTACATCAACTCTGGCTCGGGAGCAGTA  
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AGGTGCTATTTATATTTACAATGGCCGTGCAGATGGGATCTCGTCAACCTTCTCAGAGAAATTGAAGGA  
CTTCAGATCAGCAATCGTTAAGTATGTTGGACAGTCTATATCAGGACAAATTGATGCAGATAAATG  
GCTATGTAGATGTAGCAGTTGGTCTTTTCGGTCTGATTCTGCTGTCTTGCTAAGGACAAGACCTGTAGT  
AATTGTTGACGCTTCTTTAAGCCACCCTGAGTCAGTAAATAGAACGAAATTTGACTGTGTTGAAAATGGA



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TGGCCTTCTGTGTGCATAGATCTAACACTTTGTTTCTCATATAAGGGCAAGGAAGTTCAGGTTACATTG  
 TTTTGTTTTATAACATGAGTTGGATGTGAACAGAAAGGCAGAGTCTCCACCAAGATTCTATTTCTCTTC  
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 AAGAAGCCAGTGTTCATATCCAAGTGAAGGCCGCCATCCATTTAGAAAATGGATGAGACTTCAGCAC  
 TCAAGTTTGAATAAGAGCAACAGGTTTTCCAGAGCCAAATCAAAGATAATTGAACTAAACAAGGATGA  
 GAATGTTGCGCATGTTCTACTGGAAGGACTACATCAAGACCCAAACGTTATTTCCCATAGTGATT  
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 TCTTTAAAAGACAATACAAATCTATCCTACAAGAAGAAAACAGAAGAGACAGTTGGAGTTATATCAACAG  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214408 representing NM\_000885

Red=Cloning site Green=Tags(s)

MAWEARREPGPRRAAVRETVMLLLCLGVPTGRPNVDTESALLYQGPHTLFGYSVVLHSHGANRWLLVG  
 APTANWLANASVINPGAIRCRIGKNPGQTCEQLQLGSPNGEPCGKTCLEERDNQWLVTLRSPGGENGS  
 IVTCGHRWKNIFYIKNENKLPITGGCYGVPPDLRTEL SKRIAPCYQDYVKKFGENFASCQAGISSFYTKDL  
 IVMGAPGSSYWTGSLFVYNITTNKYKAFDKQNVKFGSYLGYSVGAGHFRSQHTTEVVGAPQHEQIGK  
 AYIFSIDEKELNILHEMKGKGLGSYFGASVCAVDLNADGFSDLLVGAPMQSTIREEGRVVFYINSGSGAV  
 MNAMETNLVGSDKYAARFGESIVNLGDIDNDFEDVAIGAPQEDDLQGAIIYNGRADGISSTFSQRIEG  
 LQISKSLSMFGQSIGQIDADNNGYVDVAVGAFRSDSAVLLRTRPVVIVDASLSHPESVNRKTFDCVENG  
 WPSVCIDLTLCFSYKGEVPGYIVLFYNMSLDVNRKAESPFRFYFSSNGTSDVITGSIQVSSREANCRTH  
 QAFMRKDVDRDILTPIQIEAAYHLGPHVISKRSTEEFPPLQPILQQKKEKDIMKKTINFARFCAHENSAD  
 LQVSAKIGFLKPHENKTYLAVGSMKTLMLNVSLFNAGDDAYETTLHVKLVPGLYFIKILEEEKQINCEV  
 TDNSGVVQLDCSIGYIYVDHLSRIDISFLLDVSSL SRAEEDLSITVHATCENEEMDNLKHRSVTVAIPL  
 KYEVKLVHGFVNPTSFVYGSNDENEPETCMVEKMNLTFHVINTGNSMAPNVSVIEIMVNSFSPQTDKLF  
 NILDVQTTTGECHFENYQRVCALEQQKSAMQTLKGIQVFLSKTDKRLLYCIKADPHCLNFCNFGKMESG  
 KEASVHIQLEGRPSILEMDETSALKFEIRATGFPEPNRVIELNKDENVAHVLLLEGLHHQRPKRYFTIVI  
 ISSLLLLGLIVLLLISYVMWKAGFFKRQYKSILQEENRRDSWSYINSKSNDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6046\\_c08.zip](https://cdn.origene.com/chromatograms/mk6046_c08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_000885

**ORF Size:** 3096 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

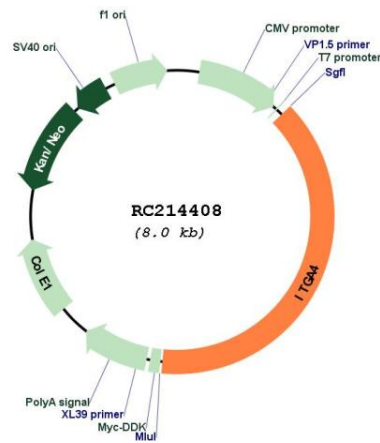
**RefSeq:** [NM\\_000885.6](#)

**RefSeq Size:** 6082 bp

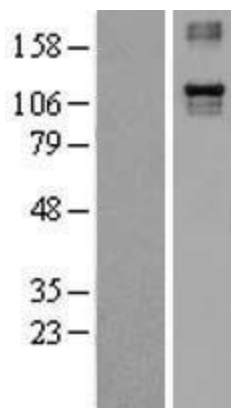
**RefSeq ORF:** 3099 bp

**Locus ID:** 3676  
**UniProt ID:** [P13612](#)  
**Cytogenetics:** 2q31.3  
**Domains:** FG-GAP  
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane  
**Protein Pathways:** Arrhythmogenic right ventricular cardiomyopathy (ARVC), Cell adhesion molecules (CAMs), Dilated cardiomyopathy, ECM-receptor interaction, Focal adhesion, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Regulation of actin cytoskeleton  
**MW:** 114.87 kDa  
**Gene Summary:** The gene encodes a member of the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha 4 subunit. This subunit associates with a beta 1 or beta 7 subunit to form an integrin that may play a role in cell motility and migration. This integrin is a therapeutic target for the treatment of multiple sclerosis, Crohn's disease and inflammatory bowel disease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2015]

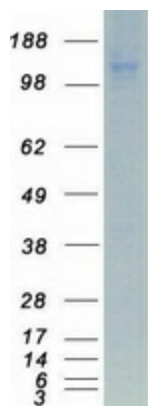
**Product images:**



Circular map for RC214408



Western blot validation of overexpression lysate (Cat# [LY400316]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214408 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGA4 protein (Cat# [TP314408]). The protein was produced from HEK293T cells transfected with ITGA4 cDNA clone (Cat# RC214408) using MegaTran 2.0 (Cat# [TT210002]).