

## Product datasheet for RC220975

### Integrin alpha 3 (ITGA3) (NM\_005501) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin alpha 3 (ITGA3) (NM_005501) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Integrin alpha 3
Synonyms:	CD49C; GAP-B3; GAPB3; ILNEB; MSK18; VCA-2; VL3A; VLA3a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220975 representing NM_005501 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCCCCGGCCCCAGCCGCGGCCCGGCCACGCCTGATGCTCTGTGCGCTCGCCTTGATGGTGG  
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GCCACCCTACACCCAGGTGCTGTGGTCAGGGTCAGAAGACCAGCGGCCATGGTGGGCAAGTGCTACG  
TGCGAGGCAATGACCTAGAGCTGGACTCCAGTGATGACTGGCAGACCTACCACAACGAGATGTGCAATAG  
CAACACAGACTACCTGGAGACGGGCATGTGCCAGCTGGGACCAGCGGTGGCTTACCCAGAACACTGTG  
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GTGCAAGTGGAGCTGTGCTTTGCTTACAACCAGAGTGCCGGGAACCCCAACTACAGGCGAAACATCACCC  
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**Protein Sequence:**

>RC220975 representing NM\_005501  
 Red=Cloning site Green=Tags(s)

MGPGPSRAPRAPRLMLCALALMVAAGGCVVSAFNLDTRFLVVKEAGNPGSLFGYSVALHRQTERQQRYLL  
 LAGAPRELAVPDGYTNRGTAVYLCPLTAHKDDCERMNITVKNDPGHHIIEDMWLGVTVASQGPAGRVLVC  
 AHRYTQVLWSGSEDQRRMVGKCYVRGNLELDSSDDWQTYHNEMCNSNTDYLETGMCQLGTSGGFTQNTV  
 YFGAPGAYNWKNSYMIQRKEWDLSEYSYKDPEDQGNLYIGYTMQVGSFILHPKNITIVTGAPRHRHMGA  
 VFLLSQEAGGDLRRRQVLEGSQVAYFGSAIALADLNNDGWQDLLVGAPYYFERKEEVGGAIYVFMNQAG  
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 KLGLPGLATFGYLSGQMDVDENFYDPLLVGSLSDHIVLLRARPVINIVHKTLVPRPAVLDPALCTATSC  
 VQVELCFAYNQSAGNPNYRRNITLAYTLEADRDRRPPRLRFAGSESAVFHGGFFSMPMERCQKLELLMDN  
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 FVSEQQQKLSRLQYSRDVRKLLL SINVTNTRTSERSGEDAHEALLTLVPPALLLSSVRPPGACQANETI  
 FCELGPNPFRNQRMEELLITFEVIGVTLHTRDLQVQLQLSTSSHQDNLWPMILTLLVDYTLQTSLSMVNHR  
 LQSF FGGTVMGESGMKTVEDVGSPLKYEYFQVGMGEGLVGLGTLVLGLEWPYEVSNKWLLYPTEITVHG  
 NGSWPCRPPGDLINPLNLTSDPDRPSSPQRRRRQLDPGGGQGPPPVTLAAAKKAKSETVLTATGRAH  
 CWWLECPIDAPVVTVNVTVKARVWNSTFIEDYRDFDRVRVNGWATLFLRTSIPTINMENKTTWFSVDIDS  
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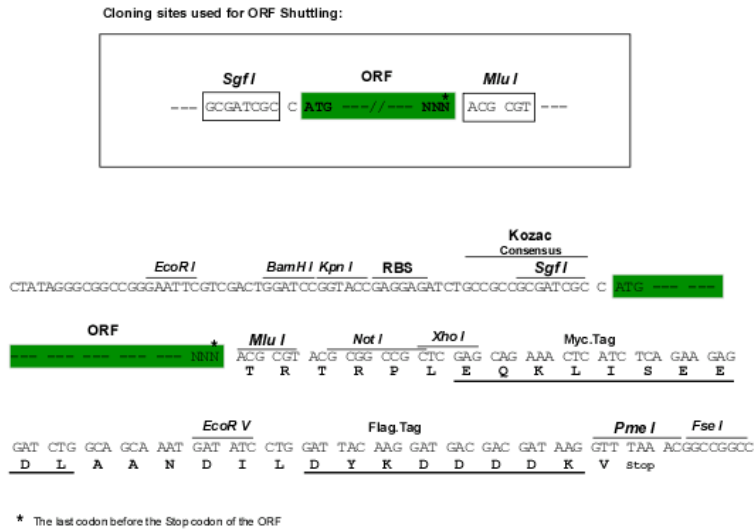
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**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6838\\_g03.zip](https://cdn.origene.com/chromatograms/mk6838_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005501

**ORF Size:** 3198 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.

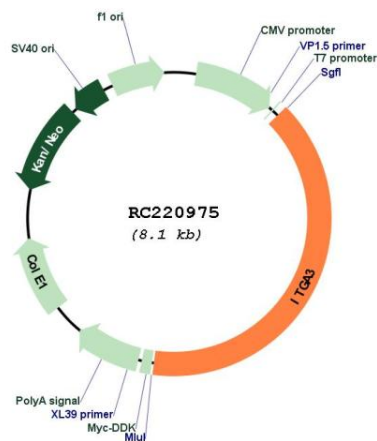
**RefSeq:** [NM\\_005501.2](#)

**RefSeq Size:** 4495 bp

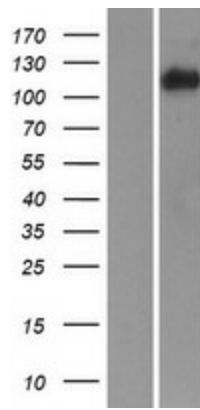
**RefSeq ORF:** 3201 bp

**Locus ID:** 3675  
**Cytogenetics:** 17q21.33  
**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), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer  
**MW:** 118.79 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 as cell surface adhesion molecules. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha 3 subunit. This subunit joins with a beta 1 subunit to form an integrin that interacts with extracellular matrix proteins including members of the laminin family. Expression of this gene may be correlated with breast cancer metastasis. [provided by RefSeq, Oct 2015]

**Product images:**



Circular map for RC220975



Western blot validation of overexpression lysate (Cat# [LY417256]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220975 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ITGA3 protein (Cat# [TP320975]). The protein was produced from HEK293T cells transfected with ITGA3 cDNA clone (Cat# RC220975) using MegaTran 2.0 (Cat# [TT210002]).