

## Product datasheet for **RG221990**

### Integrin alpha 6 (ITGA6) (NM\_000210) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Integrin alpha 6 (ITGA6) (NM_000210) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Integrin alpha 6
Synonyms:	CD49f; ITGA6B; VLA-6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221990 representing NM_000210 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGCCCGCCGGGCGAGCTGTGCTTGCTCTACCTGTCGGCGGGGCTCCTGTCCC GGCTCGGCGCAGCCT  
TCAACTTGGACTCGGGAGGACAACGTGATCCGGAAATATGGAGACCCCGGAGCCTCTTCGGCTTCTC  
GCTGGCCATGCACTGGCAACTGCAGCCGAGGACAAGCGGCTGTTGCTCGTGGGGCCCCCGGGCAGAA  
GCGCTTCCACTGCAGAGACCAACAGAACGGGAGGGCTGTACAGCTGCGACATCACCGCCGGGGCCAT  
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CACCGTCCAGAGCAAGGTCCAGGGGGCAAGTGTGACATGTGCTCACCGATATGAAAAAGGCAGCAT  
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TTGCCAGCAAGGTGTAGCAGCTACTTTTACTAAAGACTTTCATTACATTGATTTGGAGCCCCGGTACT  
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GCGCCTAGTGGGATATGCCTCCAGGTTAAATCCTGTTTTGAATATACTGCTAACCCCGCTGGTTATAATC
CTTCAATATCAATTGTGGGCACACTTGAAGCTGAAAAAGAAAGAAATCTGGGCTATCCTCAAGAGT
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CAAAGCTGTAGCTCAGTATTCGGGAGTACCTTGGTGGATCATCTAGTGGCTATTCTCGTGGGATCTT
GATGCTTGTCTTATTAGTGTATACTATGGAAGTGTGGTTTCTCAAGAGAAATAGAAAGATCATTAT
GATGCCACATATACAAGGCTGAGATCCATGCTCAGCCATCTGATAAAGAGAGGCTTACTTCTGATGCA
```

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG221990 representing NM\_000210  
 Red=Cloning site Green=Tags(s)

```
MAAAGQLCLLYLSAGLLSRLGAAFNLDTRDNVIRKYGDPSLFGFSLAMHWQLQPEDKRLLLVGAPRAE
ALPLQRANRTGGLYSCDITARGPCTRIEFDNDADPTSESKEDQWMGVTVQSQGGKVVVCAHRYEKRQH
VNTKQESRDIFGRCYVLSQNLRIEDDMDGGDWSFCDGRLRGHEKFGSCQQGVAATFTKDFHYIVFGAPGT
YNWKGIVRVEQKNNTFFDMNIFEDGPYEVGGETEHDSESLVVPANSYLGFSLDSGKGVSKDEITFVSGA
PRANHSGAVVLLKRDMSAHLLEPHIFDGEGLASSFGYDVAVVDLNKDGWQDIVIGAPQYFDRDGEVGG
VYVYMNQQGRWNVKPIRLNGTKDSMFIAVKNIGDINQDGYPDIAVGAPYDDLKGVFIYHGSANGINTK
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APSGICLQVKSCFEYANPAGYNPISIVGTLEAEKERRKSSRVQFRNQGSEPKYTQELTLKRQKQK
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LKLETTSNQDNLAPITAKAKVVIELLLSVSGVAKPSQVYFGGTVVGEQAMKSEDEVGSLEIEYFRVINLG
KPLTNLGTATLNIQWPKEISNGKWLLYLVKVESKGLEKVTCEPQKEINSLNLTESHNSRKKREITEKQID
DNRKFSLFAERKYQTLNCSVNVNVCNIRCLRGLDSKASLILRSRLWNSTFLEEYSKLNLYLDILMRAFI
VTAANAENIRLPNAGTQVRVTVFSPKTVAQYSGVPPWIIILVAILAGILMLALLVFIWKCQGFKRNKKDHY
DATYHKAIEIHAQPSDKERLTSDA
```

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000210

**ORF Size:** 3219 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\\_000210.4](#)

**RefSeq Size:** 5611 bp

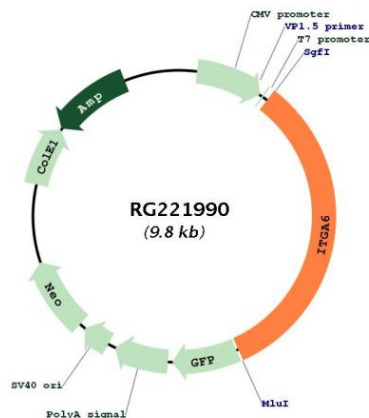
**RefSeq ORF:** 3222 bp

**Locus ID:** 3655

**UniProt ID:** [P23229](#)  
**Cytogenetics:** 2q31.1  
**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), Pathways in cancer, Regulation of actin cytoskeleton, Small cell lung cancer

**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 6 subunit. This subunit may associate with a beta 1 or beta 4 subunit to form an integrin that interacts with extracellular matrix proteins including members of the laminin family. The alpha 6 beta 4 integrin may promote tumorigenesis, while the alpha 6 beta 1 integrin may negatively regulate erbB2/HER2 signaling. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2015]

### Product images:



Circular map for RG221990