

## Product datasheet for MR211547

### Itga5 (NM\_010577) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Itga5 (NM_010577) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Itga5
Synonyms:	Cd49e; F; Fnra; VLA5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211547 representing NM_010577 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGAGCTGGACGCCACGGTCGCCTCGATCTCCTCTCCACGGGTGCTGCTGCGCTGGGGCCCCGAC  
GCCTACCGCCGCTGCTGCCTCTGCTGCTACTGTGGCCGCCACCCTCCAGGTTGGGGGCTTCAACCT  
AGACGGGAGGCCCGCGGTGCTCTCCGGCCCCCGGCTCCCTTTTGGCTTCTCCGTGGAGTTTAC  
CGGCCGGGAAGGACGGAGTCAGTGTGCTGTTGGGACCCAAAGGCTAACACTAGCCAGCCAGGTGAC  
TGCAAGGTGGTGTCTATGTGTGTCCTGGGACCCAGTCCTATCCAGTGCACCACCATTCAATTTGA  
CAGCAAAGGCTCCCGATTCTGGAGTCCCTCACTGTACAGTGCCAAGGAGAGGAGCCTGTGGAGTACAAG  
TCCTTGCAAGTGGTTCGGAGCAACAGTTCGGGCCCATGGCTCCTCCATCTTGGCATGTGCTCCACTGTATA  
GCTGGCGCACAGAAAAGGACCCACAGAATGACCCAGTGGGCACCTGCTACCTCTCCACAGAAAATTAC  
CCGGATTCTGGAGTACGCACCTTGCCGCTCAGATTTTGGCAGTGCAGCAGGGCAGGGCTACTGCCAAGG  
GGCTTCAGTGTGAGTTCACCAAGACTGGCCGTGGTCTGGTGGACCTGGAAGCTACTTCTGGCAAG  
GCCAGATCCTGTCCGCACTCAAGAGCAGATCTCGGAGTCTATTACCCAGAGTATCTCATCAACCTGT  
TCAGGGGACAGTGCAGACCCGCCAGCCAGCTCCGTCTATGATGACAGCTACTTGGGATACTCTGTGGCT  
GTGGGTGAATTCAGTGGTATGACACAGAAGACTTTGTTGCTGGCGTGCCCAAGGGGAACCTCACATATG  
GCTATGTCACCGTCCCTAATGGCTCAGACATCCACTCCCTTACAACGTCTCAGGAGAACAGATGGCCTC  
CTACTTCGGCTATGCTGTGGCTGCCACTGATACCAATGGAGATGGGCTAGATGACCTACTGGTAGGGGCA  
CCCCTGCTCATGGAGCGGACAGCTGATGGGAGACCTCAGGAGGTGGGACGGGCTACATCTATCTGCAGC  
GCCAGCGGGCATAGATCCACACCCACCCTCACCTCACTGGGCAAGATGAGTTCAGCCGATTCCGCAG  
CTCCTTGACACCCTTGGGGACCTGGACCAAGACGGCTACAATGATGTCGCCATTGGGGCTCCATTTGGT  
GGGGAGGCCAGCAGGGAGTCGATTTTATATCCCGGGAGGCCAGGAGGACTGAGCACTAAACCTTCCC  
AGGTTTTGCAGCCTTTTGGGACGCTGGCCGTACCCAGACTTCTTTGGCTCTGCCCTTCGAGGAGGACG  
AGATCTGGATGGCAATGGATACCCTGATCTAATCGTTGGATCCTTTGGTGTGGACAAGGCTCTGGTGTAC



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AGAGGGCGGCCATCATATCTGCCAGCGCATCTCTCACCATCTTCCCCTCCATGTTCAACCCAGAGGAGC  
 GCAGTTGCAGCCTGGAAGGGAACCTGTGTCTGCATCAACCTTAGCTTCTGCCTCAATGCCTCTGGAAA  
 ACATGTCCCAACTCTATAGGCTTCGAGGTGGAAGTCCAAGTGGACTGGCAGAAGCAAAGGGAGGGGTC  
 CGGCGGGCACTGTTCTGACTTCCAAGCAGGCCACCTTACCCAGACCCTGCTTATCCAGAATGGGGCTC  
 GGGAGGACTGCAGGGAGATGAAGATCTACCTCAGGAATGAATCAGAATTCAGAGACAACTCTCCCAAT  
 TCACATTGCCCTCAACTTCTCCTTGGACCCAAAGTCCCATGGACAGCCATGGCCTCCGGCCAGTTCTA  
 CACTACCAAAGCAAAGCAGGATAGAGGACAAGGCCAGATCTTGCTGGACTGTGGTGAAGACAATATCT  
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 GAACCTGACATTCATGCCCAAAATCTGGGTGAGGGCGGTGCCTATGAAGCCGAGCTTCGGTCCAGACC  
 CCTCTAGAGGCCGAGTACTCAGGACTTGTGACACACCCAGGGAAGTCTCCAGCCTGAGCTGTGACTACT  
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 GGGTGGCCTTCGGTTCAGTGTCTCATCTTCAAGACACAAGAAAACCATCCAGTTTACTTTTCCAGATC  
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 AGGTCTCCCTAATGGTGTCTCCAAGCCTGAAGCTGTGATTTCCAGTCAAGGACTGGAATCCTCAAGA  
 CCAGCCTCAGAAGGAGGAAGACTTGGGCCAGCTGCCACCATGTCTACGAGCTCATCAACCAGGGGCC  
 AGCTCCATCAGCCAGGGTGTGCTGGAGCTCAGCTGCCACAGGCTCTGGAAGGCCAACAGCTCCTCTATG  
 TGACCAAGGTGACAGGACTCAGCAACTGCACCTCCAACCTACACCCCAACTCACAGGGCCTGGAGTTGGA  
 TCCAGAGACCTCTCCACACCACCTGCAGAAACGAGAGGCTCCAGGGAGGAGTTTCTACTGCCTCAGGAA  
 CAAGTTCTGAAATGCCCTGAAGCCAAGTGTTCAGGCTGCGCTGTGAGTTTGGGCCACTGCACCGCCAAG  
 AGAGCCGTAGTCTGCAGCTGCATTTCCGAGTCTGGGCCAAGACCTTCTTGCAGCGGGAATACCAGCCATT  
 TAGCCTTCAGTGTGAGGCTGTATGAAGCTCTGAAGTGCCTACCAGATCCTGCCTCGGCAGCTTCCC  
 CAAAAGAACTTCAGGTGGCCACAGCCGTGCAGTGGACCAAGGCAGAAGGCAGCAATGGTGTCCCCTGT  
 GGATCATCATCTAGCCATTCTTTTGGCTCCTGCTCCTAGGTCTGCTCATCTACGTCTCTACAAGCT  
 CGGCTTCTTCAAACGTTCCCTCCCTACGGCACAGCCATGGAAAAGCTCAGCTCAAGCCTCCAGCCACC  
 TCAGATGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211547 representing NM\_010577

Red=Cloning site Green=Tags(s)

MGSWTPRSPRSLHAVLLRWGPRRLPPLLPLLLLLWPPPLQVGGFNLDAAEPAVLSGPPGSLFGFSVEFY  
 RPRGDGVSVLVGAPKANTSQPGVLQGGAVYVCPWGTSPIQCTTIQFDSKGSRILESSLYSAKGEEPVEYK  
 SLQWFVRAHGSILACAPLYSWRTEKDPQNDPVGTCYLSTENFRILEYAPCRSDFGSAAGQGYCQG  
 GFSAEFTKTGRVVLGGPGSYFWQQILSATQEIQISESYYPEYLINPVQQQLQTRQASSVYDDSYLGYVA  
 VGEFSGDDTEDFVAGVPKGNLTYGYVTVLNGSDIHSLYNVSGEQMASYFGYAVAATDTNGDGLDLDLVA  
 PLLMERTADGRPQEVGRVYIYLQRPAGIDPTPTLTLTGQDEF SRFGSSLTPLGDLQDGYNDVAIGAPFG  
 GEAQQGVVFI FPGPGGLSTKPSQVLQPLWAAGRTPDFFGSALRGRDL DNGY PDLIVGSFGVDKALVY  
 RGRPIISASASLTIFPSMFNPEERSCSLEGPNVSCINLSFCLNASGKHVPNSIGFEVELQLDWQKQGGV  
 RRALFLTSKQATLTQTLIQNGAREDCREMKIYLRNESEFRDKLSPIHIALNFSLDPKAPMDSHGLRPVL  
 HYQSKSRIEDKAQILLDCGEDNICVPDLQLDVYGEKKHVYLGDKNALNLFHAQNLGEGGAYEALRVTA  
 PLEAEYSGLVRHPGNFSSLSCDYFAVNQSRQLVCDLGNPMKAGTSLWGGLRFTVPHLQDTKKTIQDFQI  
 LSKNLNNSQSNVVSFPLSVEAQAQVSLNGVSKPEAVIFPVSDWNPQDQPQKEEDLGPVHHVYELINQGP  
 SSI SQVLELSCPQALEGQQLLYVTKVTGLSNCTSNYTPNSQGLELDPETSPHHLQKREAPGRSSTASGT  
 QVLKCPKACFRRLRCEFGPLHRQESRSLQLHFRVWAKTFLQREYQPFSLQCEAVYEALKMPYQILPRQLP  
 QKKLQVATAVQWTKAEGSNGVPLWIIILAILFGLLLLGLLIYVLYKLGFFKRSLPYGTAMEKAQLKPPAT  
 SDA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9012\\_a01.zip](https://cdn.origene.com/chromatograms/mm9012_a01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_010577

**ORF Size:** 3159 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

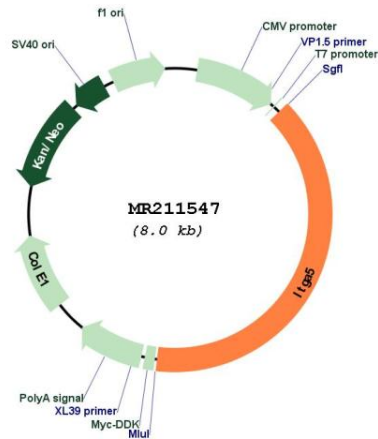
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_010577.4, NP\\_034707.5](#)  
**RefSeq Size:** 4397 bp  
**RefSeq ORF:** 3162 bp  
**Locus ID:** 16402  
**UniProt ID:** [P11688](#)  
**Cytogenetics:** 15 58.9 cM  
**MW:** 115.5 kDa

**Gene Summary:** The product of this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes the integrin alpha 5 chain, which is proteolytically processed to generate light and heavy chains that join with beta 1 to form a fibronectin receptor. In addition to adhesion, integrins are known to participate in cell-surface mediated signaling. Integrin alpha 5 and integrin alpha V chains are produced by distinct genes. Homozygous knockout mice for this gene exhibit embryonic lethality. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for MR211547