

## Product datasheet for MR223560

### Itgae (NM\_172944) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Itgae (NM_172944) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Itgae
Synonyms:	A530055J10; alpha-E1; alpha-M290; aM290; CD103
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223560 representing NM_172944 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGTGGCTCTCCATACCCTTCTCTGCATGGCCAGCCTGAAGCCCCAGGGAGCCTTCAATTTGGATG  
TGGACTGGGCCTGGGTACAGCACTCCAGCCAGGTGCACCGGCTGTGCTCAGCTCCCTTCTGCATCAAGA  
CCCCAGCAACAACCAGACCTGCCTCCTGGTAGCCAGACGCAGCTCCAACAGGAATACAGCCGCCCTGTAT  
CGATGCGCTATATCCATCAGTCCAGATGAAATTGCTTGCCAGCCAGTGGAGCACATCTGTATGCCAAAGG  
GCAGGTACCAGGGAGTGACATTGGTCGGAACCAATGGTGTGTTTGGTGTGCATTACAGGTACAGGCCCG  
GAAGTTCGCGAGCCTCAACTCAGAGCTCACGGGTGCCTGCAGCCTACTCACCCCAATTTGGACCTCCAG  
GCCAAGCCTACTTCTCTGACCTCGAAGGGTTCCTGGATCCAGGAGCACATGTGGACTCTGGTGACTACT  
GTAGAAGCAAAGGAGGCAGCACAGGGGAGGAGAAGAAGTCAGCCAGGAGACGCCGGACAGTGGAGGAGGA  
AGACGAGGAGGAAGATGGCACTGAGATCGCTATTGTCCTGGATGGCTCAGGAAGCATTGAACCTCAGAC  
TTCCAGAAGGCCAAAAATTTCTCTACCATGATGAGGAATCTATGAGAAGTGTGTTGAGTGCAACT  
TTGCCCTGGTGCAGTATGGGGCCGTGATCCAGACTGAGTTGATCTTCAAGAGAGCCGGGACATTAACGC  
CTCCCTTGCCAAAGTTCAGAGCATCGTTCAAGTGAAGGAAGTCACTAAGACCCCTCAGCCATGCAGCAT  
GTCCTAGACAATATCTTCATTCCAAGCCGTGGCTCCAGAAAAAAGCATTGAAGTCAATGGTGGTACTTA  
CTGATGGTGACATATTTGGGACCCTCTCAATCTTACGACTGTCACTCAACTCCCCAAGATGCAGGGTGT  
TGTGCGCTTTGCCATTGGGGTGGGTGATGCATTCAAGAATAACAACACTTACAGAGAAGTGAAGCTGATT  
GCCTCAGACCCCAAGAGGCCACACTTCAAGGTGACCAACTACTCAGCTCTGGATGGGCTGCTGAGCA  
AGCTGCAACAACACATCGTTTATGGAAGGTACAGTTGGAGATGCCCTTCAATATCAACTCGCACAGAC  
TGGTTTCAGTGCCAGATCCTGGACAAGGGCAGGTGTTGCTTGGCACTGTGGGGCCTTTAACTGGTCT  
GGGGTGCCTGCTCTACAGCACACAGAATGGCCGGGCTGCTTCTAAACCAGACAGCAAGGAGGACT  
CCAGGACTGTACAGTACAGCTACCTAGGTTACTCCCTTGGCGTGTACACAAGGCCACGGCGTCTCTTA  
CTGGCAGGGCTCCAAGGCACAAGCTCCGTGGGCTGTGTTGAGCTCCGAAGGAGGACAGAGAGGAG



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GATGCCTTTGTGCGACGGATAGAAGGAGAGCAGATGGGGTCTACTTTGGCTCTGTGCTGTGCCCTGTGG  
 ATATCGACATGGATGGGACCACAGATTTTCTACTGGTGGCTGCTCCATTTTACCACATCCGTGGAGAAGA  
 AGGCAGAGTCTATGTGTACCAGGTGCCTGAGCAGGATGCTTCCTTCTCCTTGGCACACACTGAGTGGG  
 CACCCTGGGCTCACCAATAGCCGCTTTGGCTTTGCCATGGCAGCTGTGGGGGATATCAACCAAGACAAAT  
 TCACAGATGTGGCCATTGGGGCCCTCTGGAGGGTTTTGGGCAGGTGACGGGGCCAGCTATGGCAGCGT  
 GTACATCTACAACGGACACTCAGGTGGCTTGTATGACAGTCTTCCCAGCAGATCCGAGCCTCCTCTGTG  
 GCCTCGGACTCCACTACTTCGGCATGTCTGTGTCGGTGGGTTAGATTTCAATGGCGATGGCCTTGCCG  
 ATATCACAGTTGGCTCTCGGACTCGGCGTTGTGCTCCGCTCACGCCCTGTGGTTGACCTGACCGTATC  
 TATGACCTTTACCCCGATGCACTGCCATGGTCTTCATAGGCAAGATGGATGTAAGTGTGTTTTGAA  
 GTTGACTCTTCAGGCGTAGCTTCTGAGCCAGGCCTTAGAGAGATGTTCTCAACTTTACGGTGGATGTGG  
 ATGTGACCAAGCAAAGGCAGAGGCTGCAGTGTGAGGACTCGAGCGGTTGTGAGAGCTGCCTCAGGAAGT  
 GAACGGAGGGTCTTTCTGTGTGAACACTTCTGGCTCATCTCCACAGAGGAGCTTTGTGAGGAGGACTGC  
 TTCTCCAACATCACCATCAAGGTCACCTACGAGTTCAGAGCTGGGGGAAGGAGGACTACCCCAACC  
 CCACCCTGGACACTACAAGGAACCTCTGCCATCTCCAGCTGCCCTACGAGAAGGACTGCAAGAACA  
 AGTGTTCGCATCGTGAGATCCAGCTGACCACCAACATCTCCAGCAGGAACTGGTGGTGGGCGTACA  
 AAGGAGGTGACCATGAACATCAGCTGACTAACTCTGGAGAGGATTCCTACATGACAAACATGGCTCTCA  
 ATTATCCAGAACTTACAGTTAAGAAGATACAAAAGCCAGTATCTCCAGATGTTCAAGTGTGATGACCC  
 CAAGCCAGTTGCTTCTGTCTGGTTCATGAACTGCAAGATTGGTCAACCCATACTCAAGAGATCATCTGTG  
 AATGTCTCAGTAACTGGCAGCTAGAGGAGAGTGTCTTTCAAATAGGACAGCAGATACACTGTGACCA  
 TCTCAATTCCAATGAGAAGTCTTTGGCCAGAGAGACAGCAGCCTTCAATTCAGACATGCCTTCATTGC  
 AGTTCTTTCCAGACCCTCAGTGATGTACATGAACACAAGCCAAAGCCCTTCTGACCACAAAGAATTCTTC  
 TCAATGTGCATGGGGAGAATCTTTTGGAGCTGTATTCCAGTTGCAAATTTGTGTCATCAAATAC  
 AAGATTTCCAGATTGTAAGAGTGAAGAATCTGACAAAGACTCAGGTATTTAAATGGGAGTCTGTGATTGC  
 ATCGCTTTCCAAAGACTACAGATTCTCAAAGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR223560 representing NM\_172944

Red=Cloning site Green=Tags(s)

MKWL FHTLLCMASLKPQGA FNLDVDWAVTALQPGAPAVLSSLLHQDPSNNQTCLLVARRSSNRNTAALY  
 RCAISISPDEIACQPVEHICMPKGRYQGVTLVGNHNGVLVCIQVQARKFRSLNSELTGACSLTLPNLDLQ  
 AQAYFSDLEGLDPGAHVDSGDYCRSKGGSTGEEKKSARRRRRTVEEEDDEEDGTEIAIVLDGSGSIEPSD  
 FQKAKNFISTMMRNFYEKCFECNFALVQYGAVIQTEFDLQESRDINASLAKVQSI VQVKEVTKTASAMQH  
 VLDNIFIPSRGSRKKALKVMVVL TDGDI FGDPLNLT TVINSPKMQGVVRF AIGVGD AFKNNNTYRELKLI  
 ASDPKEAHTFKVTNYSALDGLLSKLQQHIVHMEGTVDALQYQLAQTFGSAQILDKGQVLLGTGAFNWS  
 GGALLYSTQNGRCFLNQTAKEDSRTVQYSYLGYS LAVLHKAHGVS YVAGAPRHKL RGAVFELRKEDREE  
 DAFVRRIEGEQMGSYFGSVLCPVDIDMDGTTDFLLVAAPFYHIRGEEGRVYVYQVPEQDASFSLAHTLSG  
 HPGLTNSRFGFAMA AVGDINQDKFTDVAIGAPLEFGAGDGASYSYIYNHSGGLYDSPSQIRASSV  
 ASGLHYFGMSVSGGLDFNGDGLADITVGSRDSAVVLRSPVVDLTVSMTFTPDALPMVFIGKMDVKLCFE  
 VDSSGVASEPGLREMFLNFTVDVDVTKQRQLQCEDSSGQSCLRWNGGSFLCEHFWL ISTEELCEEDC  
 FSNITIKVTYEFQTS GGRDYPNPTLDHYKEPSAIFQLPYEKDCKNKVFCIAEIQLT TNISQQLVVGVT  
 KEVTMNI SLTNSGEDSYMNMALNYPRNLQFKKI QKPVSPDVQCDDPKPVASVLMNCKIGHPI LKRSSV  
 NVSVTWQLEESVFPNRTADITVTISNSNEKSLARETRSLQFRHAFIAVLSRPSVMYMNSTSQSPSDHKEFF  
 FNVHGENLFGAVFQLQICVPIKLDQDFQIVRVKNLTKTQVFKWESV IASLSKDYRFSKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9030\\_c07.zip](https://cdn.origene.com/chromatograms/mm9030_c07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_172944

**ORF Size:** 3114 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\\_172944.2](#), [NP\\_766532.1](#)

**RefSeq Size:** 3813 bp

**RefSeq ORF:** 3117 bp

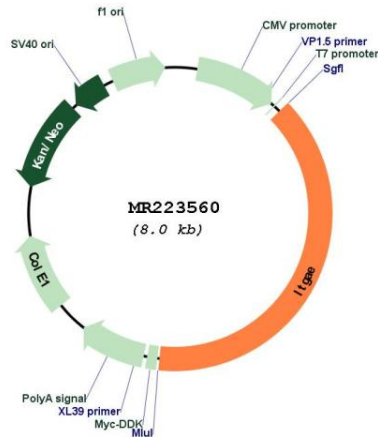
**Locus ID:** 16407

**Cytogenetics:** 11 45.22 cM

**MW:** 115.2 kDa

**Gene Summary:** Integrin alpha-E/beta-7 is a receptor for E-cadherin. It mediates adhesion of intra-epithelial T-lymphocytes to epithelial cell monolayers. Mice expressing a null mutation of the alpha-E subunit gene exhibit a marked reduction in the numbers of intraepithelial lymphocytes in the gut and in the development of gut-associated lymphoid aggregates, supporting a specific role for this integrin in mediating retention of lymphocytes in the intestinal wall.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR223560