

Product datasheet for **RC222457**

ADAM17 (NM_003183) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADAM17 (NM_003183) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ADAM17
Synonyms:	ADAM18; CD156B; CSVP; NISBD; NISBD1; TACE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC222457 ORF sequence, **codon optimized**.
 Due to the complexity of NM_003183, the ORF clone is codon optimized for mammalian Expression.
 The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGACAGTCCCTCCTCTTACCAGTGTGGTACCATTCTGTGCTTGGCCCTAGACCCCGAGACGACC
 CAGGCTTCGGACCTCATCAAAGACTGGAGAACTCGACTCACTTCTCCGACTATGATATCCTGAGCCT
 TAGCAATATCCAACAACACTCCGTGAGGAAGCGGGACCTGCAGACTTCAACTCATGTGAAACACTGCTG
 ACGTTTTCCGCACTGAAGAGGCATTTCAAGCTCTACCTTACATCTAGCACTGAGCGCTTCTCTAAAAC
 TTAAGGTGGTGGTTGTAGACGGAAAAACGAGAGCGAATATACAGTCAAGTGGAAGATTTTTTCACGGG
 CCACGTTGTCGGCGAACAGATAGCAGGGTGTGGCGCATATTCGCGACGACGCTGATAATCAGAATC
 AACACCGACGGAGCTGAGTACAACATCGAGCCCTTTGGCGGTTCTGTAATGACACAAAAGACAAGCGGA
 TGCTTGTATACAAGAGCGAGGACATCAAAAATGTGTCAAGGCTCCAGTCCCCAAGGTGTGCGGGTACCT
 GAAGGTGGATAATGAGGAGCTTCTGCCTAAAGGCTCGTTGACCGAGAACCCCGGAGGAAGTGTACAC
 CGGGTAAAAAGCGGGCAGACCCAGATCCCATGAAAAACCTGTAAGCTGCTGGTCTGGCCGATCATA
 GATTCTACAGGTACATGGGTAGAGGCGAGGAATCTACAACAACAACTACCTGATCGAACTGATTGATCG
 CGTGGATGACATCTATAGGAATACGAGCTGGGACAACGCTGGCTTCAAGGGATACGGGATTCAGATTGAG
 CAGATCCGAATACTGAAATCACACAGGAAGTGAACCTGGAGAGAAGCATTACAACATGGCGAAGTCTCT
 ATCCCAACGAGGAAAAAGATGCTTGGGATGTAAGATGTTGCTCGAGCAGTTCTTTTCGATATAGCTGA
 GGAAGCAAGCAAAGTCTGCCTCGCCACCTGTTTACCTACCAAGATTTTGACATGGGTACCTTGGGTCTT
 GCCTACGTTGGCTCACCGCGCGAATAGCCACGGCGGCTTTGCCCAAGGCGTATTACTACCCGTTG
 GTAAGAAGAACATTTACCTCAACTCAGGGCTTACTTCCACTAAAACTATGGAAAAACCTCCTTACCAA
 GGAGGCTGACCTGTTACGACCCACGAGCTTGGCCATAATTTCCGGGCTGAGCAGACCCAGACGGCTTG
 GCTGAGTGTGCCCAAATGAGGACCAGGGCGGAAAATATGTCATGTATCCAATCGCGGTCAGTGGCGACC
 ATGAAAAACAATAATGTTTTCAAATTGCTCAAAACAAGTATCTACAAAACCTTGAATCTAAAGCGCA
 GGAGTGTCTTCAAGAGAGGTCAAATAAAGTTTGTGGTAATTCGCGGTGGACGAGGGAGAAGAATGCGAT
 CCAGGGATCATGTATCTCAATAATGATACTTGTGTAAGTCCGACTGCACGCTGAAGGAAGGGTGAAT
 GCTCCGACCGAATAGTCCCTGTTGCAAGAATTGCCAGTTCGAGACTGCGCAGAAAAAGTCCAGGAGGC
 TATTAATGCAACCTGCAAGGTGTCTCCTATTGTACGGGAACTCATCTGAGTGTCCACCCCTGGCAAT
 GCCGAGGATGATACTGTGTGTTGGATCTTGGTAAGTGAAGGATGGGAAGTGTATCCATTCTGCGAGC
 GGGAGCAACAGTTGGAATCATGCGCCTGCAATGAGACTGATAATCTTGCAAAGTCTGCTGTCCGACCT
 CAGTGGCCGCTGTGTCCCGTACGTAGATGCCGAACAAAAGAACTGTTCTCGGAAAGGGAAAACCTTGC
 ACCGTGGGTTCTGCGATATGAACGAAAAATGTAAAAAAGAGTGAAGACGTCATCGAGAGATTTTGGG
 ATTTTCATTGACCAGCTGAGCATTAAATACATTTGGTAAGTTTCTCGCAGATAACATCGTGGATCCGTCCT
 CGTCTTTAGCTTGATTTTCTGGATCCCGTTCAGTATTCTTGTCCACTGTGTGGATAAGAACTTGACAAG
 CAGTATGAGTCTTTGAGCCTGTTTCATCCATCCAACGTGGAAATGCTGAGCAGTATGGATAGCGCATCAG
 TGAGGATCATTAAAGCCTTTCCAGCACCTCAAACCTCTGGCCGCTGCAGCCAGCGCCAGTATCCCTTC
 CGCGCCTGCTGCTCAAAACTGGATCACCAAAGAAATGGACTATCCAGGAAGACCCCTCTACCGATAGC
 CATATGGATGAAGACGGTTTCGAAAAGGACCCATTCCCGAACTCATCTACTGCTGCAAAATCCTTGAAG
 ATCTCACAGATCACCCAGTTACTAGATCCGAGAAGGCTGCAAGTTTTAAGCTCCAGCGCCAGAACAGGGT
 CGATTCTAAGGAACTGAGTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC222457 representing NM_003183
 Red=Cloning site Green=Tags(s)

```

MRQSLLFLTSVVPFVLAPRPPDDPGFGPHQRLEKLDSSLSDYDILSLSNIIQQHSVRKRDLOTSTHVETLL
TF SALKRRHFKLYLTSSTERFSQNFKVVVVDGKNESEYTVKWQDFFTGHVVGEPSRVLAHIRDDDDVIIRI
NTDGAEYNIIEPLWRFVNDTKDKRMLVYKSEDIKNVSRLLQSPKVCGYLKVDNEELLPKGLVDREPPEELVH
RVKRRADPDPMKNTCKLLVVADHRFYRYMGRGEESTTTNYLIELIDRVDDIYRNTSWDNAGFKGYGIE
QIRILKSPQEVKPGEKHYNMAKSYPNEEKDAWDVKMLLEQFSFDIAEEASKVCLAHLFTYQDFDMGTLGL
AYVGSPRANSHGGVCPKAYYSPVGKKNIYLNGLTSTKNYGTILTKEADLVTTHELGHNFGEAHPDGL
AECAPNEDQGGKYVMYPIAVSGDHENKMFSNCSKQSIYKTIESKAQECFQERSNKVCGNSRVDEGEECD
PGIMYLNNDTCCNSDCTLKEGVQCDRNSPCKNCQFETAQKKCQEAINATCKGVSYCTGNSSECPPPGN
AEDDTVCLDLGKCKDGKIPFCEREQQLESCACNETDNSCKVCCRDLSGRVVPYVDAEQNLFRLKPKPC
TVGFCMDNGKCEKRVQDVIERFDFIDQLSINTFGKFLADNIVGSVLFSLIFWIPFSILVHCVDKLDK
QYESLSLFFHPSNVEMLSMDSASVRIIKPFPAQTPGRLQAPVIPSAPAAPKLDHQRMQDITQEDPSTDS
HMDEDGFEKDPFPNSSTAASFEFLTDHPVTRSEKAASFKLQRQNRVDSKETEC
  
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfi-MluI

Cloning Scheme:



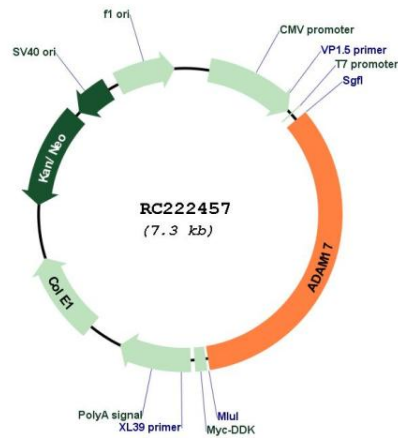
ACCN: NM_003183

ORF Size: 2472 bp

OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_003183.4 , NP_003174.3
RefSeq Size:	4391 bp
RefSeq ORF:	2475 bp
Locus ID:	6868
UniProt ID:	P78536
Cytogenetics:	2p25.1
Protein Families:	Druggable Genome, Protease, Transmembrane
Protein Pathways:	Alzheimer's disease, Epithelial cell signaling in Helicobacter pylori infection, Notch signaling pathway
MW:	93 kDa

Gene Summary:

This gene encodes a member of the ADAM (a disintegrin and metalloprotease domain) family. Members of this family are membrane-anchored proteins structurally related to snake venom disintegrins, and have been implicated in a variety of biologic processes involving cell-cell and cell-matrix interactions, including fertilization, muscle development, and neurogenesis. The encoded preproprotein is proteolytically processed to generate the mature protease. The encoded protease functions in the ectodomain shedding of tumor necrosis factor-alpha, in which soluble tumor necrosis factor-alpha is released from the membrane-bound precursor. This protease also functions in the processing of numerous other substrates, including cell adhesion proteins, cytokine and growth factor receptors and epidermal growth factor (EGF) receptor ligands, and plays a prominent role in the activation of the Notch signaling pathway. Elevated expression of this gene has been observed in specific cell types derived from psoriasis, rheumatoid arthritis, multiple sclerosis and Crohn's disease patients, suggesting that the encoded protein may play a role in autoimmune disease. Additionally, this protease may play a role in viral infection through its cleavage of ACE2, the cellular receptor for SARS-CoV and SARS-CoV-2. [provided by RefSeq, Aug 2020]

Product images:


Circular map for RC222457