

Product datasheet for **MR216879**

Def6 (NM_027185) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Def6 (NM_027185) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Def6
Synonyms:	2410003F05Rik; 6430538D02Rik; AV094905; Ibp; Slat; Slat2; Slat6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR216879 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCCTGCGCAAGGAGCTGCTCAAGTCTATCTGGTACGCCCTTCACTGCACTGGACGTGGAGAAGAGCG
 GCAAGGTCTCCAAGTCCCAACTCAAGGTGCTGTCCACAACCTGTACACTGTCTGAACATCCCCATGA
 CCCCGTGGCCCTGGAGGAGCACTTCCGGGATGACGATGATGGCCCGGTGTCCAGTCAAGTTACATGCC
 TACCTCAACAAGTACATCCTAGACAAGGTGGAGGAGGAGCTTTCGTTAAGGAGCACTTCGATGAGTTGT
 GCTGGACCCTGACTGCCAAGAAGAACTACAGGGCAGATGGCATCGGGAGCAGCCACTCTCTAATCAGGA
 TGCTTCCGCTCTATGGTGCCTCTCAACTTCTGTCTGAGGACAAGTACCCGCTGATCATGGTCCCGAT
 GAGGTAGAGTATCTGCTGAAGAAGCTCCTTGGCAGCCTGAGTTTGGAGATGGCCTGGGCAAGCTGGAGG
 AGCTGCTGGCCAGGACGCCAGTACGCCAGACCCGCTGGGGCTCAGCGTCTGGCAGTTTCTGAACT
 CTTCAACTCAGGCCGCTGCCTTCGGGGTGTGGGCGCGACTCCCTCAGCATGGCCATCCAAGAAGTCTAC
 CAGGAGCTCATCCAAGAGCTCCTGAAGCAGGGCTATCTGTGGAAGCGAGGGCACCTGCGGAGGAACTGGG
 CCGAGCGCTGTTCCAGCTGCAACCCAGCAGCCTCTGCTACTTTGGGAGTGAGGAATGCAAGGAGAAACG
 AGGCACCATTCCTGGATGCTCACTGTGTGGAGGTGCTTCCGACCGCGAAGGAAAGCGCTGCATG
 TTTTGTGTGAAGACTGCCAGCCGCACCTATGAGATGAGCGCCTCAGACACCCGCCAGCGCCAGGAGTGGA
 CGGCCGCCATCCAGACTGCGATCCGGCTGCAGGCGGAGGGGAAGACGTGCTGCACAAGGACCTGAAACA
 GAAGCGGCGGGAGCAGCGGGAACAGCGCAGGACGCCGGGCAGCAAGGAGGAGGAGCTGCTGCGACTG
 CAGCAGCTGCAGGAGGAGAAGGAGAGGAAGTCAAGAAGTGGAGCTGCTGCAGGAGGCTCAGCGGCAGG
 CCGAGCGGCTGCTGCAGGAAGAGGAGGAGCGCCCGTAGCCAGCACAAGGAGCTGCAGCAGCTCTGGA
 GGGCCAGCTGCGGGAGGCGGAGCAGGCCCGGCCCTCTATGCAGGCTGAGATGGAGCTGAAGAAGGAAGAG
 GCGGCCCGGCAACGCGCAGCGCATCGCTGAACTGGAGGAGATGCAGGAGCGGCTGCAGGAAGCTCTGCAAC
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 GGAGAAGCTGAAGCAGCTGATGCATCTGAAGGAGGAGCAAGAGCGCTACATCGAGCGAGCGCAGCAGGAG
 AAGCAGGAGCTCCAGCAGGAGATGGCGTGCAGAGCCGTTCCCTGCAGCACGCCAGCAGCAGCTGGAGG
 AAGTGCAGCAGAACCGGCAGAGGCGAGCAGGACGTGGAGGCTGCCAGAGGAAGTTGCCCGAGGCCAG
 CACCAACGTGAAACTGGAATGTCAGATGAACAGGCTCATGCATCCGATCGAGCCAGGAGATAAGCGA
 CCCACCACGACGCTCCTTACGGGCTCCAGCCCCCTCGCTTCCCGCCGGGACTCCTCTCTAAGC
 GCCTGACCCGCTGGGGTTCCAAGGTAACAGAACCCTCTCAGTCAATAGCAGCGAACAGAAGTCCCTCAA
 TGTTGGAGATGAGACTCCCATCCTAGCTTTGGCCTCTCAGGAAGAAAACTGGATCCAGCACCAGGGAAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

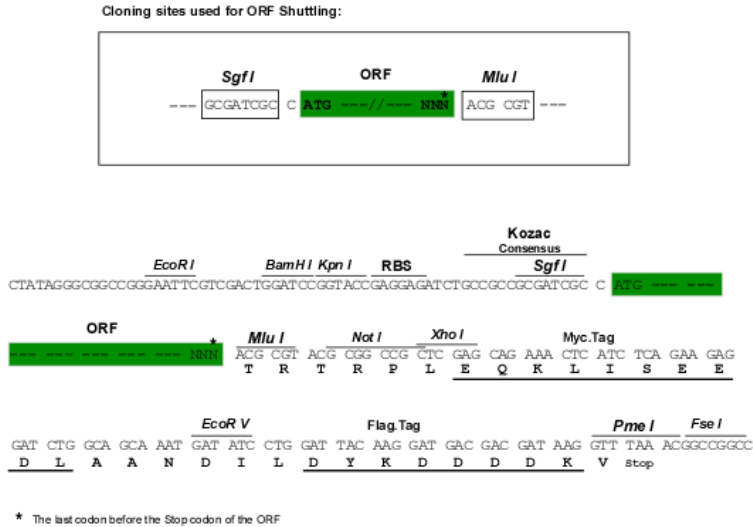
>MR216879 protein sequence
 Red=Cloning site Green=Tags(s)

MALRKELLKSIWYFTALDVEKSGKVSQSLKVLSHNLTYVLNIPHPVAAEEHFRDDDDGPVSSQGYMP
 YLNKYILDKVEEGAFVKEHFDELWTLTAKKNYRADGIGSSPLSNQDAFRLWCLFNFLSEDKYPLIMVPD
 EVEYLLKKLLGSLSEMLGKLEELLAQDAQSAQTAVGLSVWQFLELFNSGRCLRGVGRDSLMAIQEVY
 QELIQDVLKQGYLWKRHLRRNWAERWFQLQPSSLCYFGSECKEKRGTIPLDAHCCVEVLPDREGKRCM
 FCVKTASRTYEMSASDRQRQEWTAIIQTAIRLQAEKTSLSLHKDLKQRRREQRERRRAAKEEELLRL
 QQLQEEKERKLELELLQEAQRQAERLLQEEERRRSQHKELQQALEGQLREAEQARASMQAEMELKKEE
 AARQRQRIAELEEMQERLQEQALQLEVKARRDEEAVRLAQTRLLSEEEKQKQMLHMLKEEQERYIERAQQE
 KQELQQEMALQSRSLQHAQQLEEVQRNRQRADEDVEAAQRKLRQASTNVKHWNVQMNRLMHPPIEPGDKR
 PTTSSSFTGFQPPPLARRDSSLKRLTRWGSQGNRTL SVNSSEQKSLNNGDETPIALALASQEEKLDPAPGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_027185

ORF Size: 1893 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 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).

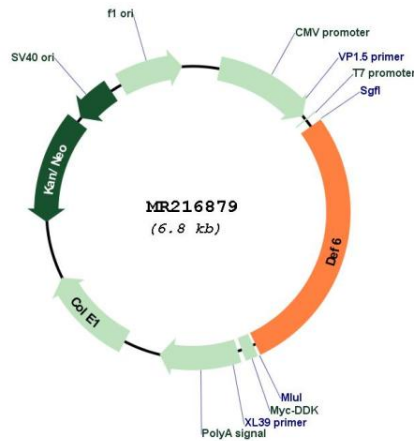
Reconstitution Method:

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_027185.3, NP_081461.2](#)
RefSeq Size: 2294 bp
RefSeq ORF: 1893 bp
Locus ID: 23853
UniProt ID: [Q8C2K1](#)
Cytogenetics: 17 A3.3
MW: 73.5 kDa

Gene Summary: Phosphatidylinositol 3,4,5-trisphosphate-dependent guanine nucleotide exchange factor (GEF) which plays a role in the activation of Rho GTPases RAC1, RhoA and CDC42. Can regulate cell morphology in cooperation with activated RAC1. Plays a role in Th2 (T helper cells) development and/or activation, perhaps by interfering with ZAP70 signaling. Required for optimal T-cell effector function, lymphocyte homeostasis and the prevention of systemic autoimmunity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR216879