

Product datasheet for **MR207672**

Akt3 (NM_011785) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Akt3 (NM_011785) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Akt3
Synonyms:	AI851531; D930002M15Rik; Nmf350
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207672 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGCGATGTTACCATTGTGAAAGAAGGTTGGGTTCCAGAAGAGGGGAGAATATATAAAAACTGGAGGC
 CAAGATACTTCCTTTGAAGACAGATGGCTCATTCATAGGCTATAAGGAGAAACCTCAAGATGTGGACTT
 ACCTTATCCCCTCAACAACCTTCTCAGTGGCAAAATGTCAGTAAATGAAAAAGAACGACCAAGCCAAAT
 ACATTTATTATCAGATGTCTTCAGTGGACCACTGTTATAGAGAGAACATTTATGTAGATACACCAGAGG
 AAAGAGAAGAGTGGACGGAAGCTATCCAAGCCGTAGCCGACCGATTGCAGAGGCAAGAGGAGGAGAGGAT
 GAATTGTAGCCAGCCTCACAGATTGATAATATAGGAGAAGAAGAGATGGATGCGTCTACAACCCATCAT
 AAAAGAAAAGACGATGAATGATTTTGACTATTTGAAACTACTAGGTAAGGCATTTTGGGAAAGTTATTT
 TGGTTCGAGAGAAGGCAAGTGGAAAATACTATGCTATGAAGATTCTGAAGAAAGAAGTCATTATTGCAA
 GGATGAAGTGGCACACACTCTTACTGAAAGCAGAGTACTAAAGAACACCAGACATCCATTTTAAACATCC
 TTGAAATATTCTTCCAGACAAAAGACCGTTTGTGTTTTGTGATGGAATATGTTAATGGCGGAGAGCTGT
 TTTTCCATTTGTGCGAGAGAGCGAGTGTCTCTGAGGACCCGACACGTTTCTATGGTGCAGAAATTGTCTC
 TGCTTTGGACTATCTACATTCTGGAAAGATTGTGTACCGTATCTCAAGTTGGAGAATTTGATGCTAGAT
 AAGGATGGCCATATAAAATTACGGATTTTGGGCTTTGCAAAGAAGGGATCACAGATGCAGCTACCATGA
 AGACATTCTGTGGCACACCAGAGTACCTGGCACCAGAGGTATTAGAAGATAATGACTATGGCCGAGCCGT
 GGACTGGTGGGGCTTAGGTGTTGCATGTATGAAATGATGTGTGGAAGGTTGCCTTTCTACAACCCAGGAT
 CATGAGAAACTCTTTGAATTAATACTAATGGAAGACATTAATTTCCCCGAACACTCTCTCAGATGCAA
 AATCATTGCTTTACAGGCTCTTGATAAAGGATCCAAATAAACCCCTTGGTGGAGGCCAGATGATGCAAA
 AGAAATCATGAGGCATAGTTTTTTTTCTGGAGTAAACTGGCAAGATGTATATGACAAAAAGCTTGTACCT
 CCTTTTAAAGCCTCAAGTAACATCTGAAACAGACACCCGATATTTTATGATGAAGAATTTACAGCTCAGACTA
 TTACAATAACACCACCTGAAAAGTATGACGACGACGGCATGGACGGCATGGACAGCGAGCGGCCGACACA
 CTTCCCTCAGTTCTCTACTCTGCAAGCGGACGGGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207672 protein sequence
 Red=Cloning site Green=Tags(s)

MSDVTIVKEGWVQKRGEYIKNWRPRYFLLKTDGSFIGYKEKPQDLDLPYPLNNFSVAKCQLMKTERPKPN
 TFIIRCLQWTTVIERTFHVDTPEREWEATEAIQAVADRLQRQEEERMNCSPASQIDNIGEEEMDASTTHH
 KRKTMNDFDYLKLLGKTFGKVLVREKASGKYYAMKILKKEVIAKDEVAHTL TESRVLKNTRHPFLTS
 LKYSFQTKDRLCFVMEYVNGGELFFHLSRERVF SEDRTRFYGAEIVSALDYLHSGKIVYRDLKLENLMLD
 KDGHKIDTDFGLCKEGITDAATMKTF CGTPEYL APEVLEDNDYGRAVDWVGLGVVMEYEMMCGRLPFYNQD
 HEKLFELILMEDIKFPRTLSSDAKSLLSGLLIKDPNKRLGGGPDDAKEIMRHSFFSGVNWQDVYDKKLV
 PFKPQVSETDTRYFDEEFQAQTITITPPEKYDDDGMDGMSERRPHFPQFSYSASGRE

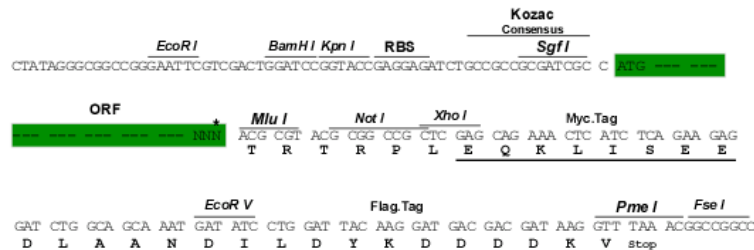
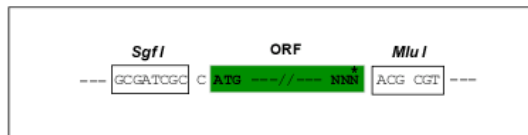
TRTRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_011785

ORF Size: 1440 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_011785.2](#), [NP_035915.2](#)

RefSeq Size: 4735 bp

RefSeq ORF: 1440 bp

Locus ID: 23797

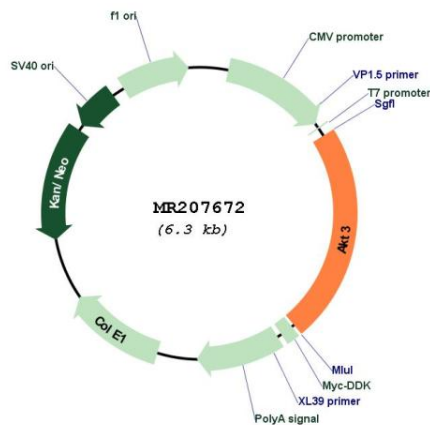
UniProt ID: [Q9WUA6](#)

Cytogenetics: 1 H4

MW: 55.7 kDa

Gene Summary: AKT3 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT3 is the least studied AKT isoform. It plays an important role in brain development and is crucial for the viability of malignant glioma cells. AKT3 isoform may also be the key molecule in up-regulation and down-regulation of MMP13 via IL13. Required for the coordination of mitochondrial biogenesis with growth factor-induced increases in cellular energy demands. Down-regulation by RNA interference reduces the expression of the phosphorylated form of BAD, resulting in the induction of caspase-dependent apoptosis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207672