

Product datasheet for **RG224750**

AKT3 (NM_181690) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKT3 (NM_181690) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AKT3
Synonyms:	MPPH; MPPH2; PKB-GAMMA; PKBG; PRKBG; RAC-gamma; RAC-PK-gamma; STK-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG224750 representing NM_181690
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCGATGTTACCATTGTGAAAGAAGGTTGGGTTTCAGAAGAGGGGAGAATATATAAAAACTGGAGGC
 CAAGATACTTCTTTTGAAGACAGATGGCTCATTCATAGGATATAAAGAGAAACCTCAAGATGTGGATTT
 ACCTTATCCCCTCAACAACCTTTTCAGTGGCAAAATGCCAGTTAATGAAAAAGAACGACCAAGCCAAAC
 ACATTTATAATCAGATGTCTCCAGTGGACTACTGTTATAGAGAGAACATTTTCATGTAGATACTCCAGAGG
 AAAGGGAAGAATGGACAGAAGCTATCCAGGCTGTAGCAGACAGACTGCAGAGGCAAGAAGAGGAGAGAAT
 GAATTGTAGTCCAACCTCACAAATTGATAATATAGGAGAGGAAGAGATGGATGCCTCTACAACCCATCAT
 AAAAGAAAGACAATGAATGATTTTGACTATTTGAAACTACTAGGTAAGGCATTTTGGGAAAGTTATTT
 TGGTTCGAGAGAAGGCAAGTGGAAAATACTATGCTATGAAGATTCTGAAGAAAGAAGTCATTATTGCAA
 GGATGAAGTGGCACACACTCTAACTGAAAGCAGAGTATTAAGAACAAGTACATCCCTTTTAAACATCC
 TTGAAATATTCTTCCAGACAAAAGACCGTTTGTGTTTTGTGATGGAATATGTTAATGGGGCGAGCTGT
 TTTTCCATTTGTGCGAGAGAGCGGGTCTCTGAGGACCGCACACGTTTCTATGGTGCAGAAATTGTCTC
 TGCTTGGACTATCTACATTCGGAAAGATTGTGTACCGTGTACTCAAGTTGGAGAATCTAATGCTGGAC
 AAAGATGGCCACATAAAAATTACAGATTTTGGACTTTGCAAGAAGGGATCACAGATGCAGCCACCATGA
 AGACATTTCTGTGGCACTCCAGAATATCTGGCACCAGAGGTGTTAGAAGATAATGACTATGGCCGAGCAGT
 AGACTGGTGGGCGCTAGGGTGTGTCATGTATGAAATGATGTGTGGGAGGTTACCTTTCTACAACCAGGAC
 CATGAGAAACTTTTTGAATTAATATTAATGGAAGACATTAATTTCTCGAACACTCTCTCAGATGCAA
 AATCATTGCTTTTCAGGGCTCTTGATAAAGGATCCAAATAAACCGCTTGGTGGAGGACCAGATGATGCAA
 AGAAATTATGAGACACAGTTTCTCTCTGAGTAAACTGGCAAGATGTATATGATAAAAAGCTTGTACCT
 CCTTTTAAACCTCAAGTAACATCTGAGACAGATACTAGATATTTTGTGAAAGATTTACAGCTCAGACTA
 TTACAATAACACCACCTGAAAAATGTCAGCAATCAGATTGTGGCATGCTGGGTAAGTGGAAAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG224750 representing NM_181690
 Red=Cloning site Green=Tags(s)

MSDVTIVKEGWQKRGEYIKNWRPRYFLLKTDGSFIGYKEKPQDVLPYPLNNSVAKCQLMKTERPKPN
 TFIIRCLQWTTVIERTFHVDTPEREWEATEAIQAVADRLQRQEEERMNCSPTSQIDNIGEEEMDASTHH
 KRKTMNDFDYLKLLGKGTFGKVLVREKASGKYAMKILKKEVIAKDEVAHTL TESRVLKNTRHPFLTS
 LKYSFQTKDRLCFVMEYVNGGELFFHL SRERVF SEDRTRFYGAEIVSALDYLHSGKIVYRDLKLENMLD
 KDGHIKITDFGLCKEGITDAATMKTF CGTPEYLAPEVLEDNDYGRAVDWWGLGVVMYEMMCGRLPFYNQD
 HEKLFELILMEDIKFPRTLSSDAKSLLSGLLIKDPNKRLGGPDDAKEIMRHSFFSGVNWQDVYDKKLV
 PFKPQVTDTRYFDEEFTAQTIITPPEKCCQSDCGMLGNWKK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_181690

ORF Size: 1395 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).

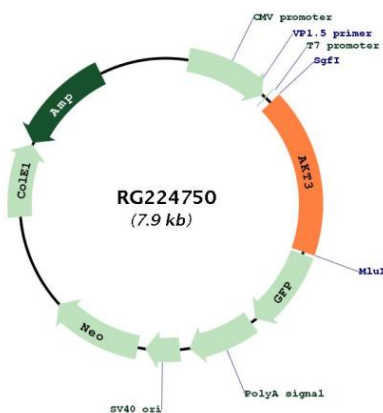
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_181690.2](#)

RefSeq Size: 1703 bp
RefSeq ORF: 1398 bp
Locus ID: 10000
UniProt ID: [Q9Y243](#)
Cytogenetics: 1q43-q44
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways: Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway

Gene Summary: The protein encoded by this gene is a member of the AKT, also called PKB, serine/threonine protein kinase family. AKT kinases are known to be regulators of cell signaling in response to insulin and growth factors. They are involved in a wide variety of biological processes including cell proliferation, differentiation, apoptosis, tumorigenesis, as well as glycogen synthesis and glucose uptake. This kinase has been shown to be stimulated by platelet-derived growth factor (PDGF), insulin, and insulin-like growth factor 1 (IGF1). Alternatively splice transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG224750