

Product datasheet for **SC310362**

AKT3 (NM_181690) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKT3 (NM_181690) Human Untagged Clone
Tag:	Tag Free
Symbol:	AKT3
Synonyms:	MPPH; MPPH2; PKB-GAMMA; PKBG; PRKBG; RAC-gamma; RAC-PK-gamma; STK-2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_181690 edited
 CCAAACCCTAAAGCTGATATCACAAAGTACCATTCTCCAAGTTGGGGGCTCAGAGGGGA
 GTCATCATGAGCGATGTTACCATTGTGAAAGAAGGTTGGGTTTCAGAAGAGGGGAGAAATAT
 ATAAAAAAGCTGGAGGCCAAGATACTTCCTTTTGAAGACAGATGGCTCATTTCATAGGATAT
 AAAGAGAAACCTCAAGATGTGGATTTACCTTATCCCCTCAACAACTTTTTCAGTGGCAAAA
 TGCCAGTTAATGAAAACAGAACGACCAAAGCCAAACACATTTATAATCAGATGTCTCCAG
 TGGACTACTGTTATAGAGAGAACATTTTCATGTAGATACTCCAGAGGAAAGGGAAGAATGG
 ACAGAAGCTATCCAGGCTGTAGCAGACAGACTGCAGAGGCAAGAAGAGGAGAGAATGAAT
 TGTAGTCCAACCTCACAAATTGATAATATAGGAGAGGAAGAGATGGATGCCTCTACAACC
 CATCATAAAAGAAAGACAATGAATGATTTTACTATTTGAAACTACTAGGTAAGGCACT
 TTTGGGAAAGTTATTTTGGTTCGAGAGAAGGCAAGTGGAAAATACTATGCTATGAAGATT
 CTGAAGAAAGAAGTCATTATTGCAAAGGATGAAGTGGCACACACTCTAACTGAAAGCAGA
 GTATTAAGAAGAACTAGACATCCCTTTTAAACATCCTTGAATATTCCTCCAGACAAAA
 GACCGTTTGTGTTTTGTGATGGAATATGTTAATGGGGGCGAGCTGTTTTCCATTTGTGC
 AGAGAGCGGGTGTCTCTGAGGACCGCACACGTTTCTATGGTGCAGAAATTTGTCTCTGCC
 TTGGACTATCTACATCCGGAAAGATTGTGTACCGTGATCTCAAGTTGGAGAATCTAATG
 CTGGACAAAGATGGCCACATAAAAATTACAGATTTTGGACTTTGCAAAGAAGGGATCACA
 GATGCAGCCACCATGAAGACATTTCTGTGGCACTCCAGAATATCTGGCACCAGAGGTGTTA
 GAAGATAATGACTATGGCCGAGCAGTAGACTGGTGGGGCCTAGGGGTTGTCATGTATGAA
 ATGATGTGTGGGAGTTACCTTTCTACAACCAGGACCATGAGAAAATTTTTGAATTAATA
 TTAATGGAAGACATTAATTTTCTCGAACACTCTTTCAGATGCAAAATCATTGCTTTCA
 GGGCTCTTGATAAAGGATCCAAATAAACGCCTTGGTGGAGGACCAGATGATGCAAAAAGAA
 ATTATGAGACACAGTTTCTTCTGGAGTAAACTGGCAAGATGTATGATAAAAAGCTT
 GTACCTCCTTTTAAACCTCAAGTAACATCTGAGACAGATACTAGATATTTTGTGAAGAA
 TTTACAGCTCAGACTATTACAATAACACCACCTGAAAAATGTCAGCAATCAGATTGTGGC
 ATGCTGGGTAAGTGGAAAAATAAT



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_181690 unedited NATTTGCATTTGTAACGACTCATATAGGCGGCCGCGCAATTCGCACGAGGCCAAACCCT AAAGCTGATATCACAAGTACCATTTCTCCAATTGGGGGCTCAGAGGGGAGTCATCATGA GCGATGTTACCATTGTGAAAGAAGGTTGGGTTCAGAAGAGGGGAGAATATATAAAAACT GGAGGCCAAGATACTTCCTTTTGAAGACAGATGGCTCATTATAGGATATAAAGAGAAAC CTCAAGATGTGGATTTACCTTATCCCCTCAACAACCTTTTCAGTGGCAAAATGCCAGTTAA TGAAACAGAACGACCAAGCCAAACACATTTATAATCAGATGTCTCCAGTGGACTACTG TTATAGAGAGAACATTTTCATGTAGATACTCCAGAGGAAAGGAAGAAATGGACAGAAGCTA TCCAGGCTGTAGCAGACAGACTGCAGAGCAAGAAGAGGAGAGAATGAATTGTAGTCCAA CTTCACAAATTGATAATATAGGAGAGGAAGAGATGGATGCCTCTACAACCCATCATAAAA GAAAGACAATGAATGATTTTGACTATTTGAACTACTAGGTAAAGGCACTTTTGGGAAAG TTATTTTGGTTCGAGAGAAGGCAAGTGGAAAATACTATGCTATGAAGATTCTGAAGAAAG AAGTCATTATTGCAAAGGATGAAGTGGCACACACTCTAACTGANAGCAGAGTATTAAGA ACACTAGACATCCCTTTTAAACATCCTTGAATATTCCTTCCAGACAAAAGACCGTTTGT GTTTTGTGATGGAATATGTTAATGNGGGCGAGCTGTTTTTCCATTTG
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_181690 unedited CATGGGGAGGCACTTCAGGCCAGGAAGCACTGGGGAGGGTACAGGAGCCCCGGGATCT GTTCAGAAACAGCTATGACCGCGCCGCAATCTAGATTATTTTTCCAGTTACCCAGCAT GCCACAATCTGATTGCTGACATTTTTAGGTGGTGTATTGTAATAGTCTGAGCTGTA TTCTTCATCAAAATATCTAGTATCTGTCTCAGATGTTACTTGAGGTTTAAAAGGAGTAC AAGCTTTTATCATATACATCTTGCCAGTTTACTCCAGAGAAGAACTGTGTCTCATAAT TTCTTTTGCATCATCTGGTCTCCACCAAGGCGTTTATTTGGATCCTTTATCAAGAGCCC TGAAAGCAATGATTTTGCATCTGAAGAGAGTGTTCGAGGAAATTAATGTCTTCCATTAA TATTAATTCAAAAAGTTTCTCATGGTCTGGTTGTAGAAAGGTAACCTCCCACACATCAT TTCATACATGACAACCCCTAGGCCCCACAGTCTACTGCTCGGCCATAGTCATTATCTTC TAACACCTCTGGTGCCAGATATTCTGGAGTGCCACAGAATGTCTTCATGGTGGCTGCATC TGTGATCCCTTCTTTGCAAAGTCCAAATCTGNTATTTTTATGTGGCCATCTTTGTCCAGC ATTAGATTCTCCAACCTTGAGATCACGGTACACAATCTTCCGGAATGTAGATAGTCCCAA GGCAGAAGACATTTCTGCACCATAGAAACGTGGTGGGTCCTCAGAAGAACACCCGCTCT CTCGCAAAATGGAAAAACAGCTCGCCCCCTTAAACATATTTTCATCACAAAACAAAACGGT CTTTTGTCTGGGAAGGATATTTCAAGGATGTTAAAAAAGGAGGCCAAATGGTCCTTTAT AACTCTGCTT
Restriction Sites:	Please inquire
ACCN:	NM_181690
Insert Size:	1500 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 TrueClone was found to represent an alternative form of the specific reference to which it is associated. Its Open Reading Frame (ORF) may represent a novel form or alternative splice variant. By virtue of it being a true transcript (cDNA clone not PCR product), it provides a biologically relevant copy of its mRNA template. For more details, please evaluate the sequence information provided on this website or contact our customer care specialists.
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_181690.1 , NP_859029.1
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]

Transcript Variant: This variant (2) differs in the 3' UTR and 3' coding region, compared to variant 1. The resulting isoform (2) is shorter and has a distinct C-terminus, compared to isoform 1. Variants 2 and 3 encode the same isoform (2). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.