

Product datasheet for SC116883

AKT1 (NM_005163) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKT1 (NM_005163) Human Untagged Clone
Tag:	Tag Free
Symbol:	AKT1
Synonyms:	AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>OriGene ORF sequence for NM_005163 edited

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ATGAGCGACGTGGCTATTGTGAAGGAGGGTTGGCTGCACAAACGAGGGGAGTACATCAAG
ACCTGGCGGCCACGCTACTTCTCCTCAAGAATGATGGCACCTTATTGGCTACAAGGAG
CGGCCGCAGGATGTGGACCAACGTGAGGCTCCCCTCAACAACCTTCTGTGGCGCAGTGC
CAGCTGATGAAGACGGAGCGGCCCGGCCAACACCTTCATCATCCGCTGCCTGCAGTGG
ACCACTGTCATCGAACGCACCTTCCATGTGGAGACTCCTGAGGAGCGGGAGGAGTGGACA
ACCGCCATCCAGACTGTGGCTGACGGCCTCAAGAAGCAGGAGGAGGAGGAGATGGACTTC
CGGTCCGGCTCACCCAGTGACAACCTCAGGGGCTGAAGAGATGGAGGTGTCCTGGCCAAG
CCCAAGCACCGCGTGACCATGAACGAGTTTGAAGTACCTGAAGCTGCTGGGCAAGGGCACT
TTCGGCAAGGTGATCCTGGTGAAGGAGAAGGCCACAGGCCGCTACTACGCCATGAAGATC
CTCAAGAAGGAAGTCATCGTGGCCAAGGACGAGGTGGCCACACACTCACCGAGAACCGC
GTCCTGCAGAACTCCAGGCACCCCTTCTCACAGCCCTGAAGTACTCTTTCCAGACCCAC
GACCGCCTCTGCTTTGTCATGGAGTACGCCAACGGGGGCGAGCTGTTCTTCCACCTGTCC
CGGGAGCGTGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGCTGAGATTGTGTCAGCC
CTGGACTACCTGCACTCGGAGAAGAACGTGGTGTACCGGGACCTCAAGCTGGAGAACCTC
ATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCTGTGCAAGGAGGGGATC
AAGGACGGTGCCACCATGAAGACCTTTTTCGGCACACCTGAGTACCTGGCCCCGAGGTG
CTGGAGGACAATGACTACGGCCGTGCAAGTGGACTGGTGGGGGCTGGGCGTGGTATGATAC
GAGATGATGTGGGTGCGCTGCCCTTCTACAACCAGGACCATGAGAAGCTTTTTGAGCTC
ATCCTCATGGAGGAGATCCGCTTCCCGCACGCTTGGTCCCAGGCCAAGTCTTGCTT
TCAGGGCTGCTCAAGAAGGACCCCAAGCAGAGGCTTGGCGGGGGCTCCGAGGACGCCAAG
GAGATCATGCAGCATCGTTCTTTGCCGGTATCGTGTGGCAGCACGTGTACGAGAAGAAG
CTCAGCCCACCTTCAAGCCCCAGGTCACGTCCGAGACTGACACCAGGTATTTTGTGAG
GAGTTCACGGCCAGATGATCACCATCACACCACCTGACCAAGATGACAGCATGGAGTGT
GTGGACAGCGAGCGCAGGCCCACTTCCCCAGTTCTCCTACTCGCCAGCGGCACGGCC
TGA

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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_005163 unedited GTCACCATTTGTATACGACTCATATAGGCGGCNCGGATTTCGGCAGGAGGAAGTACTTGG GGCATTTCCTCTTTGGAGGCTGTGGCCAGGCCAGCTGGGCTCGGGGAGCGCCAGCCTGA GAGGAGCGCGTGAGCGTTGCGGGAGCCTCGGGCACCATGAGCGACGTGGCTATTGTGAAG GAGGGTTGGCTGCACAAACGAGGGGAGTACATCAAGACCTGGCGGCCACGCTACTTCCTC CTCAAGAATGATGGCACCTTCATTGGCTACAAGGAGCGGCCGAGGATGTGGACCAACGT GAGGCTCCCCTCAACAACCTTCTCTGTGGCGCAGTGCCAGCTGATGAAGACGGAGCGGCC CGGCCAACACCTTCATCATCCGCTGCCTGCAGTGGACCACTGTATCGAACGCACCTTC CATGTGGAGACTCCTGAGGAGCGGGAGGAGTGGACAACC GCCATCCAGACTGTGGCTGAC GGCCTCAAGAAGCAGGAGGAGGAGAGTGGACTTCCGGTTCGGGCTCACCAGTGACAAC TCAGGGGCTGAAGAGATGGAGGTGTCCCTGGCCAAGCCAAAGCACCGCGTGACCATGAAC GANGTTGAGTACCTGAAGCTGCTGGCAAGGGCACTNTCGGCAAGGTGATCCTGGTGAAG GAGAAGCCACAGGCCGCTACTACGCCATGAAGATCCTCAAGAANGAGTATCGTGCCAA GGACGANGTGGCCACACACTCACCGAGAACC CGCTCCTGCANAACCTCAGGCACCCCT TNCTCACAGCCCTGAAGTACTTTCCAGACCACGACCCTCTGCTTTGTCATGGAGTA CAGCCACGGGGGCGAGCTGNTCTCCACCTGTCCCGNAGCGTGTGNTCCGAGACCGG CCCGCTTCTATGCGCTGAGAT
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_005163 unedited CCGCGGCACGCAATCTAGTATCGAGTTTTTTTTTTTTTTTTTTTGGAAAACAACCTTTTATTG AAGAATTTGGAGGGAAGGTTCCATATTATATTATAATAGTAAAAATACTAAAGTTGAATG TTGTAAAAAACGCCGTGGTGCATCGGCAGCGGCAGCGTCTGGCCAGGATGCGTGGAGGG GCCCATGGATGGCCACCCACAGGGAGTCAGGGAGGGCCTGGGGGACAGCGGAAAGGT TAAGCGTCGAAAAGGTCAAGTGTACCTGGAGAGATCATCTGAGGGGGAGGCTCCCGGT GGGACAGTCACCAAGAACTGTGACACAGAAGGGGAAGGGGAGGGCTTTCTGTACAAA GATTA AAAACCCCAAAATGCATTTGAACAACATAATACACAATAACAAATTTAAACCTT GCTCCTCTGTCCACTGGGTAAACCTTGCCCATCCCCATCCCTGGTCCCATCCCATGG GCCAGCCTCCGATGACGTCCTCAGAGACACGGCCTTATTGCTGGGGGGCTGCTGTGTGC CTGCCACCCCAAGGAGAGGGTGTGGCCAGCATACCATAGTGAGGTTGCATCTGGTGCCA CCAGGTTGAACTGATGCCCATGGCCCCAGAGAGATGACAGATAGCTGGTACAGACAGCC CAGGGCGGCTGGCTGACAGAGTGAAGGGACACATGGGCAGGACCTTGCTGGCCCCCAAT GCCACATTGCGCATAGCTGCAGAAATCCCTAACATTTCCCTACGTGAATCGGATTGTTCT GAAGGCTGAAGCCCCCCCCGGAGGACAACTGGATGAATAAATAAAACCCGCGGATATTT TTTTTCTCCCGCTGCGGGGGAGTTGCTGNCCAAGCACAAAACCTTTTCTTTGGGCTCA AAGGCCCGGGGTTTTCTCATGCCCCGGAATAAACCTATTCCGATCTGCCCGAGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_005163
Insert Size:	2380 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
RefSeq:	NM_005163.2 , NP_005154.2
RefSeq Size:	3008 bp
RefSeq ORF:	1443 bp
Locus ID:	207

Domains:	pkinese, S_TK_X, TyrKc, PH, S_TKc
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 serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Mutations in this gene have been associated with the Proteus syndrome. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2011]

Transcript Variant: This variant (1) is the longest transcript. Variants 1, 2 and 3 encode the same protein.