

Product datasheet for **SC330074**

AKT2 (NM_001243027) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: AKT2 (NM_001243027) Human Untagged Clone
Tag: Tag Free
Symbol: AKT2
Synonyms: HIHGH; PKBB; PKBBETA; PRKBB; RAC-BETA
Vector: pCMV6-Entry (PS100001)
Fully Sequenced ORF: >SC330074 representing NM_001243027.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGAAGACCGAGAGGCCGCGACCCAACACCTTTGTACATCGCTGCCTGCAGTGGACCACAGTCATCGAG
 AGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAGGAGTGGATGCGGGCCATCCAGATGGTCGCAAC
 AGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTACAAGTGTGGCTCCCCAGTGACTCCTCC
 ACGACTGAGGAGATGGAAGTGGCGGTGAGCAAGGCACGGGCTAAAGTGACCATGAATGACTTCGACTAT
 CTCAAACCTCTTGCAAGGAACCTTTGGCAAAGTCATCCTGGTGGGAGAAGGCCACTGGCCGCTAC
 TACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACAGTCACCGAG
 AGCCGGGTCTCCAGAACACCAGGCACCCGTTCCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGAC
 CGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGTGAGCTGTTCTTCCACCTGTCCCGGAGCGTGTC
 TTCACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGG
 GACGTGGTATACCGCGACATCAAGCTGGAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACT
 GACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCATGAAACCTTCTGTGGGACCCCGGAG
 TACCTGGCGCCTGAGGTGCTGGAGGACAATGACTATGGCCGGGCGGTGGACTGGTGGGGGCTGGGTGTG
 GTCATGTACGAGATGATGTGCGGCCGCTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTC
 ATCCTCATGGAAGAGATCCGCTTCCCGCGCAGCTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTG
 CTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCAGCGATGCCAAGGAGGTGATGGAGCACAGG
 TTCTTCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCTTCAAACCTCAGGTC
 ACGTCCGAGGTGACACAAGGTACTTCGATGATGAATTTACCGCCAGTCCATCACAATCACACCCCT
 GACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCAGTTCTCCTACTCG
 GCCAGCATCCGCGAGTGA

Restriction Sites: SgfI-MluI
ACCN: NM_001243027
Insert Size: 1260 bp


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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).
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:	<u>NM_001243027.1</u>
RefSeq Size:	5280 bp
RefSeq ORF:	1260 bp
Locus ID:	208
Cytogenetics:	19q13.2
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
MW:	48.5 kDa

Gene Summary:

This gene is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains, which is involved in signaling pathways. The gene serves as an oncogene in the tumorigenesis of cancer cells. For example, its overexpression contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. The encoded protein is a general protein kinase capable of phosphorylating several known proteins, and has also been implicated in insulin signaling. [provided by RefSeq, Nov 2019]

Transcript Variant: This variant (2) differs in the 5' UTR, contains an alternate splice site in the 5' coding region, and initiates translation at a downstream AUG. This results in a protein (isoform 2) with a shorter N-terminus, compared to isoform 1. Variants 2 and 3 encode 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.