

Product datasheet for **RC220257L3V**

AKT1 (NM_005163) Human Tagged ORF Clone Lentiviral Particle

Product data:

| | |
|---------------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | AKT1 (NM_005163) Human Tagged ORF Clone Lentiviral Particle |
| Symbol: | AKT1 |
| Synonyms: | AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA |
| Vector: | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| ACCN: | NM_005163 |
| ORF Size: | 1440 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RC220257). |
| 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. |
| RefSeq: | NM_005163.2 , NP_005154.2 |
| RefSeq Size: | 3008 bp |
| RefSeq ORF: | 1443 bp |
| Locus ID: | 207 |
| Cytogenetics: | 14q32.33 |
| Domains: | pkinese, S_TK_X, TyrKc, PH, S_TKc |
| Protein Families: | Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase |



[View online »](#)

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: 55.7 kDa

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]