# Active Recombinant Full Length Human AKT2 Protein, C-Flag-tagged

**Cat. No.** AKT2-260HFL **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Full Length Human AKT2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells. |
| **Species** | Human |
| **Source** | Mammalian Cells |
| **Description** | 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 phophorylating several known proteins, and has also been implicated in insulin signaling. |
| **Form** | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol. |
| **Bio-activity** | AKT2 activity verified in a biochemical assay: AKT2 (v-akt murine thymoma viral oncogene homolog 2) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. AKT2 is a serine/threonine kinase that plays a key in regulating cell survival, insulin signaling, angiogenesis and tumor formation. Varying concentrations of AKT2 were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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| | protein to phosphorylate the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors. |
| **Molecular Mass** | 55.6 kDa |
| **AA Sequence** | MNEVSVIKEGWLHKRGEYIKTWRPRYFLLKSDGSFIGYKERPEAPDQTLPPLNNFSV AECQLMKTERPRP NTFVIRCLQWTTVIERTFHVDSPDEREEWMRAIQMVANSLKQR APGEDPMDYKCGSPSDSSTTEEMEVAV SKARAKVTMNDFDYLKLLGKGTFGRVILV REKATGRYYAMKILRKEVIIAKDEVAHTVTESRVLQNTRHP FLTALKYAFQTHDRLCF VMEYANGGELFFHLSRERVFTEERARFYGAEIVSALEYLHSRDVVYRDIKLEN LMLD KDGHIKITDFGLCKEGISDGATMKTFCGTPEYLAPEVLEDNDYGRAVDWWGLGVVM YEMMCGRLPF YNQDHERLFELILMEEIRFPRTLSPEAKSLLAGLLKKDPKQRLGGGP SDAKEVMEHRFFLSINWQDVVQK KLLPPFKPQVTSEVDTRYFDDEFTAQSITITPPDRYDSLGLLELDQRTHFPQFSYSASI RETRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining. |
| **Stability** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **Storage** | Store at -80 centigrade. |
| **Concentration** | >50 ug/mL as determined by microplate BCA method. |
| **Preparation** | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps. |

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| **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 |
| **Full Length** | Full L. |

## GENE INFORMATION

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| **Gene Name** | AKT2 AKT serine/threonine kinase 2 [ Homo sapiens (human) ] |
| **Official Symbol** | AKT2 |
| **Synonyms** | PKBB; PRKBB; HIHGHH; PKBBETA; RAC-BETA |
| **Gene ID** | 208 |
| **mRNA Refseq** | NM_001626.6 |
| **Protein Refseq** | NP_001617.1 |
| **MIM** | 164731 |

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| **UniProt ID** | P31751 |
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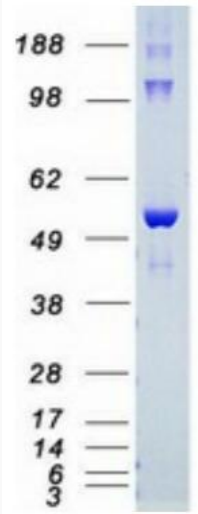
| |  |



Coomassie blue staining of purified AKT2 protein.

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