

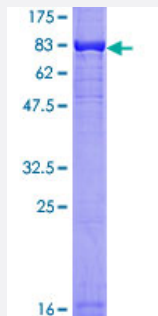
## Full-Length

# AKT1 (Human) Recombinant Protein (P01)

Catalog # H00000207-P01

Size 25 ug, 10 ug

## Applications



## Specification

### Product Description

Human AKT1 full-length ORF ( AAH00479.1, 1 a.a. - 480 a.a.) recombinant protein with GST-tag at N-terminal.

### Sequence

MSDVANKEGWLHKRGEYIKTWRPRYFLLKNDGTFIGYKERPQDQREAPLNNFSVAQCQLMKT  
ERPRPNTFIIRCLQWTTVIERTLHVETPEEREETWTAIQTVADGLKKQEEEEMDFRSGSPSDNSGA  
EEMEVS LAKPKHRVTMNEFEYKLLGKGTFGKVILVKEATGRYYAMKILKKEVIVAKDEVAHTLTE  
NRVLQNSRHPFLTALKYSFQTHDRLCFVMEYANGGELFFHLSRERVFSEDRARFYGAEIVSALDY  
LHSEKNVVYRDLKLENLMLDKDGHKITDFGLCKEGIKDGATMKTFCGTPEYLAPEVLEDNDYGRA  
VDWWGLGVVYEMMCGRLPFYNQDHEKLFELILMEEIRFPRTLGPPEAKSLLSGLLKDPKQRLG  
GGSEDAKEIMQHRFFAGNVQHVYEKKLSPPFKPQVTSETDTRYFDEEFTAQMITITPPDQDDSM  
ECVDSERRPHFPQFSYSASGTA

### Host

Wheat Germ (in vitro)

### Theoretical MW (kDa)

78.54

### Interspecies Antigen Sequence

Mouse (98); Rat (98)

### Preparation Method

[in vitro wheat germ expression system](#)

### Purification

Glutathione Sepharose 4 Fast Flow

### Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

|                     |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| Storage Buffer      | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer. |
| Storage Instruction | Store at -80°C. Aliquot to avoid repeated freezing and thawing.          |
| Note                | Best use within three months from the date of receipt of this protein.   |

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — AKT1

|                     |                                                      |
|---------------------|------------------------------------------------------|
| Entrez GeneID       | <a href="#">207</a>                                  |
| GeneBank Accession# | <a href="#">BC000479</a>                             |
| Protein Accession#  | <a href="#">AAH00479.1</a>                           |
| Gene Name           | AKT1                                                 |
| Gene Alias          | AKT, MGC99656, PKB, PKB-ALPHA, PRKBA, RAC, RAC-ALPHA |
| Gene Description    | v-akt murine thymoma viral oncogene homolog 1        |
| Omim ID             | <a href="#">164730</a> <a href="#">181500</a>        |
| Gene Ontology       | <a href="#">Hyperlink</a>                            |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq] |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Other Designations**

RAC-alpha serine/threonine-protein kinase|murine thymoma viral (v-akt) oncogene homolog-1|protein kinase B|rac protein kinase alpha

## Pathway

- [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](#)

- [Prostate cancer](#)
- [Renal cell carcinoma](#)
- [Small cell lung cancer](#)
- [T cell receptor signaling pathway](#)
- [Tight junction](#)
- [Toll-like receptor signaling pathway](#)
- [VEGF signaling pathway](#)

## Disease

- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Amphetamine-Related Disorders](#)
- [Atherosclerosis](#)
- [Basal Ganglia Diseases](#)
- [Bipolar Disorder](#)
- [Breast Neoplasms](#)
- [Calcinosis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cognition](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Coronary Artery Disease](#)
- [Depressive Disorder](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)

- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Dominance](#)
- [Drug Toxicity](#)
- [Dyskinesia](#)
- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [HIV Infections](#)
- [Leukemia](#)
- [Liver Cirrhosis](#)
- [Lung Neoplasms](#)
- [Memory](#)
- [Metabolic Syndrome X](#)
- [Necrosis](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuropsychological Tests](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Parkinson disease](#)

- [Polycystic Ovary Syndrome](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)
- [Prostatic Neoplasms](#)
- [Psychiatric Status Rating Scales](#)
- [Psychoses](#)
- [Psychotic Disorders](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Schizophrenia](#)
- [Space Perception](#)
- [Thrombophilia](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tuberculosis](#)
- [Urinary Bladder Neoplasms](#)
- [Verbal Learning](#)
- [Werner syndrome](#)