

## Product datasheet for **TP317733**

### **AKT2 (NM\_001626) Human Recombinant Protein**

#### **Product data:**

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human v-akt murine thymoma viral oncogene homolog 2 (AKT2), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC217733 representing NM_001626 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MNEVSVIKEGWLHHRGEYIKTWRPRYFLLKSDGSFIGYKERPEAPDQTLPLNNFSVAECQLMKTERPRP  
NTFVIRCLQWTTVIERTFHVDSPDEREEWMRAIQMVANSLKQRAPGEDPMDYKCGSPSDSSTTEEMEVAV  
SKARAKVTMNDFDYLKLLGKGTFRVILVREKATGRYYAMKILRKEVIAKDEVAHTVTSRVLQNRHP  
FLTALKYAFQTHDRLCFVMEYANGGELFFHLSRERVTEERARFYGAEIVSALEYLHSRDVVYRDIKLEN  
LMLDKDGHKIDFGLCKEGISDGATMKTFCTPEYLAPEVLEDNDYGRAVDWWGLGVVWYEMMCGRLP  
F  
YNQDHERLFELILMEEIRFPRTLSPEAKSLLAGLLKKDPKQRLGGGPSDAKEVMEHRFFLSINWQDVVQK  
KLLPPFKPQVTSEVDTRYFDDEFTAQSITITPPDRYDSLGLLELDQRTHFPQFSYSASIRE

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-Myc/DDK
Predicted MW:	55.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

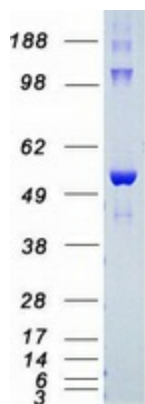
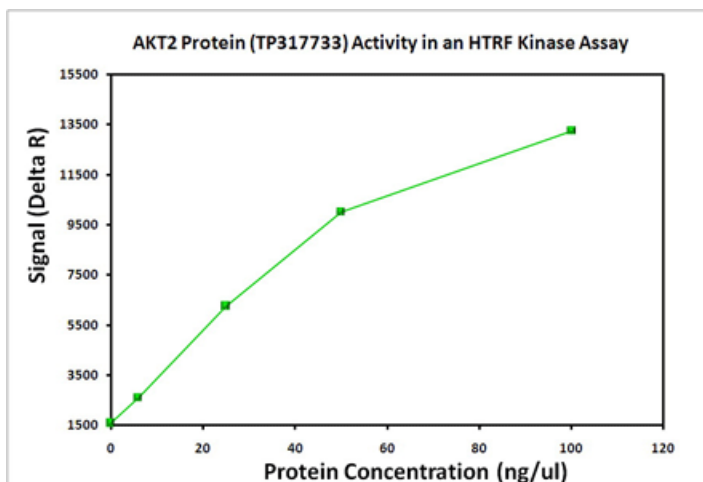


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<b>Bioactivity:</b>	AKT2 activity verified in a biochemical assay: <b>AKT2 (v-akt murine thymoma viral oncogene homolog 2)</b> (TP317733) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. AKT2 is a serine/threonine kinase 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 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.
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_001617</a>
<b>Locus ID:</b>	208
<b>UniProt ID:</b>	<a href="#">P31751</a>
<b>RefSeq Size:</b>	1715
<b>Cytogenetics:</b>	19q13.2
<b>RefSeq ORF:</b>	1443
<b>Synonyms:</b>	HIHGHH; PKBB; PKBBETA; PRKBB; RAC-BETA
<b>Summary:</b>	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]
<b>Protein Families:</b>	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

**Product images:**

Coomassie blue staining of purified AKT2 protein (Cat# TP317733). The protein was produced from HEK293T cells transfected with AKT2 cDNA clone (Cat# [RC217733]) using MegaTran 2.0 (Cat# [TT210002]).