

## Product datasheet for **TA397071**

### **AKT2 Rat Monoclonal Antibody [Clone ID: 16G11.E8]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	16G11.E8
<b>Applications:</b>	ELISA, FC, IHC, WB
<b>Recommended Dilution:</b>	<b>WB:</b> 1:500- 1:2000 <b>IHC:</b> 20 µg/mL <b>FC:</b> User Optimized <b>ELISA:</b> 1:2,000 - 1:10,000
<b>Reactivity:</b>	Human
<b>Host:</b>	Rat
<b>Isotype:</b>	IgG2a, kappa
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Anti-AKT2 Antibody was produced by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT2 protein.
<b>Specificity:</b>	Anti-AKT2 antibody is directed against human AKT2. The antibody detects both unphosphorylated and phosphorylated forms of the protein. Anti-AKT2 was purified from concentrated tissue culture supernate by Protein A chromatography. Cross reactivity with AKT2 from other species has not been determined, however, the sequence of the immunogen shows 88% identity to mouse and 90% identity with rat, therefore, cross reactivity is expected.
<b>Formulation:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Concentration:</b>	1.0 mg/ml - lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Stability:</b>	Expiration date is one (1) year from date of receipt.
<b>Gene Name:</b>	AKT serine/threonine kinase 2



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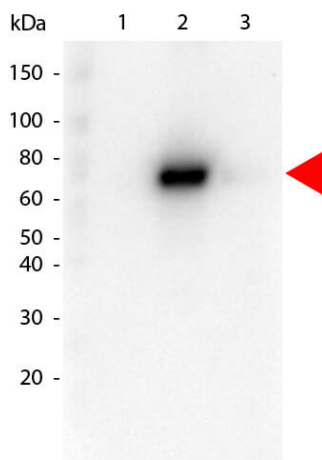
**Database Link:** [Entrez Gene 208 Human P31751](#)

**Background:** AKT2 Antibody detects AKT2 which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation. Anti-AKT2 Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.

**Synonyms:** rat anti-Anti-AKT2 antibody, AKT 2 antibody, AKT-2, PKB antibody, PKB beta antibody, PKBBETA antibody, PRKBB antibody, Protein kinase Akt 2 antibody, Protein kinase B beta antibody, RAC-beta serine/threonine-protein kinase, RAC-PK-beta

**Note:** Anti-AKT2 Antibody is tested for ELISA, immunohistochemistry, and western blotting. Expect a band approximately 56 kDa in size corresponding to AKT2 protein by western blotting in the appropriate cell lysate or extract. This monoclonal antibody reacts with human AKT. Specific conditions for reactivity should be optimized by the end user. For immunohistochemistry we recommend the use of fresh frozen tissues. Attempts at staining paraffin-embedded formalin fixed tissues were negative. No pre-treatment of sample is required.

### Product images:



Western Blot of Rat anti-AKT2 antibody. Lane 1: GST Tagged recombinant AKT1. Lane 2: GST Tagged recombinant AKT2. Lane 3: GST Tagged recombinant AKT3. Load: 25 ng per lane. Primary antibody: AKT2 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase rat secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 78 kDa for AKT2. Other band(s): none.