Cat. AKT14-S	Rabbit Anti-Rat AKT1 Antiserum #4,	**SIZE**: 100 ul
Cat. AKT14-A	Rabbit Anti-Rat AKT1 IgG #4, (Affinity Pure)	**SIZE**: 100 ug
Cat. AKT14-P	Rat AKT1 Control/blocking peptide #4	**SIZE**: 100 ug

Putative human homolog of the proto-oncogene v-akt of the acutely transforming retrovirus AKT8 have been cloned. These protein-serine/threonine kinase proteins have a catalytic domain closely related to both PKA and PKC and have been designated rac (related to A and C kinases), pkb (Protein kinase B) or Akt.

RAC protein kinase family members feature pleckstrin homology (PH) domain at the amino terminus and a protein-serine/threonine kinase catalytic domain at the carboxy terminus. The Amino terminal domain (referred to as AH-Akt Homology domain) spans from 1-148 amino acids and contains the PH domain, a region found in diverse group of signaling proteins. The PH domain (amino acids 1-106) has been implicated in interactions with other proteins such as G-protein bg subunits, as well as phosphoinositides. The kinase domain is located between residues 148 to 411. These enzymes are activated by diverse ligands such as PGDF, EGF and basic FG in NIH 3T3, Rat-1 or Swiss-3T3 cells.

AKT1 (RAC-PK-a or PKB-a) is the human homolog of v-akt and is identical to RAC gene. The protein has been observed to show different migratory patterns on a western blot according to the state of phosphorylation of the protein. Phosphatase treatment has been shown to result in inactivation of the protein.

Source of Antigen and Antibodies

Antigen	16aa peptide of **Rat AKT1 (gene accession#** (1); **Designated (AKT14-P** or **control peptide).**
Location	~C-terminal
Ab Host/type	Rabbit, polyclonal
Ab Format	Unpurified antiserum (cat #AKT14-S) Aff pure IgG (**cat # AKT14-A**)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS
Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Specificity & Cross-reactivity

The rat AKT14-P is 100% conserved in Mouse/human and 93% homologous in bovine. The antibodies react with purified recombinant human AKT2 (Cat # AKT13-C). It may have some reactivity with the phosphorylated form of AKT1 as well. Antibody crossreactivity in other species is not available. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol web site).

General References: (1) Konishi et al. (1994) BBRC **205**, 817; Coffer & Woodgett (1991) Eur. J. Biochem. **201**, 475; Jones et al. (1991) PNAS USA **88**, 4171; Marte BM & Downward J (1997) TIBS 22, 355.

*This product is for *in vitro* research use only.

Related material available from ADI:

Western Blot recycling kit (Use the same blot to probe with multiple antibodies CSP11, CLO11, etc.) **recycle blot at room temp in 5-10 min**; No mercaptoethanol or heating required).

AKT14-S-A-P 71210S

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