

Product datasheet for **TA306225**

AKT1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1 - 2 ug/mL, ICC: 2 ug/mL, IF: 20 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Akt1 antibody was raised against a 16 amino acid peptide from near the amino-terminus of human Akt1.
Formulation:	PBS containing 0.02% sodium azide.
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	AKT serine/threonine kinase 1
Database Link:	AAH00479 Entrez Gene 207 Human P31749

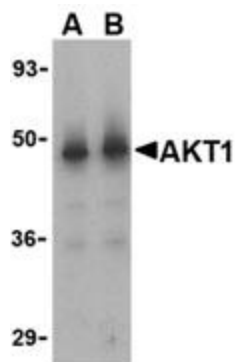
Background: Akt1, initially identified as the cellular homolog to the retro-viral oncogene v-Akt (1), is part of the phosphatidyl 3'-kinase (PI3K)-Akt signaling pathway that is activated by diverse cellular stimuli and regulates critical cellular functions such as cell growth, proliferation, and survival (2). Following phosphorylation of the second messenger PIP2 by PI3K, Akt1 translocates to the cell membrane where it is activated by phosphoinositide-dependent kinase (PDK) 1 and PDK2 (3). The active Akt1 is then able to phosphorylate and activate its substrates, including those that are important for cell proliferation and survival such as TOR and the Bcl-2 homolog Bad (4,5). Negative regulation of the PI3K-Akt signaling pathway is mainly accomplished by the lipid phosphatase activity of PTEN which catalyzes the conversion of PIP3 to PIP2, thereby preventing the activation of Akt1. Inactivation of this gene often results in excessive Akt1 activity, often leading to the formation of malignant tumors (reviewed in 6).



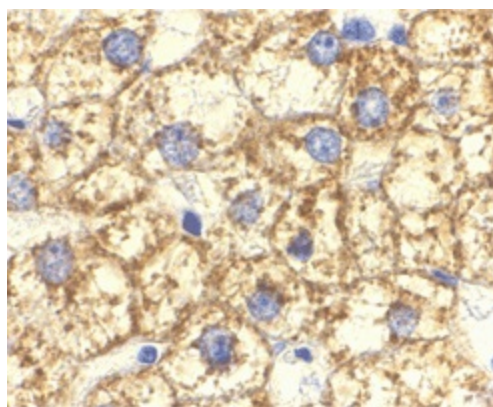
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Synonyms: AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

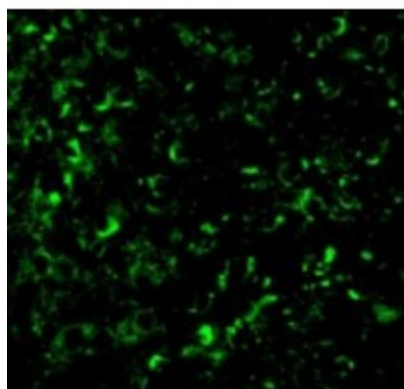
Product images:



Western blot analysis of Akt1 in human liver cell lysate with Akt1 antibody at (A) 1 and (B) 2 ug/ml.



Immunohistochemical staining of A431 cells using Beclin-1 antibody at 1 ug/ml.



Immunofluorescence of Akt1 in Human Liver cells with Akt1 antibody at 20 ug/mL.