Akt1 Antibody

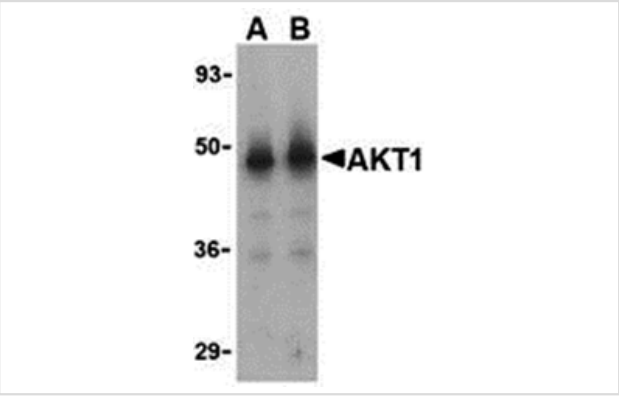
Catalog No: #24316

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

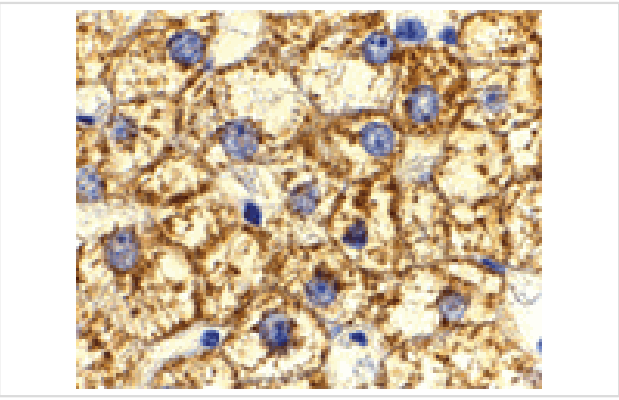
Description

Product Name	Akt1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Affinity chromatography purified via peptide column
Applications	ELISA WB IHC
Species Reactivity	Hu Ms Rt
Immunogen Type	Peptide
Immunogen Description	Raised against a 16 amino acid peptide from near the amino-terminus of human Akt1.
Target Name	Akt1
Other Names	Protein kinase B, PKB
Accession No.	Swiss-Prot:P31749Gene ID:207
Uniprot	P31749
GeneID	207;
Concentration	1mg/ml
Formulation	Supplied in PBS containing 0.02% sodium azide.
Storage	Can be stored at -20°C, stable for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Images



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



Immunohistochemistry of Akt1 in human liver cells with Akt1 antibody at 2 ug/mL.

Background

Akt1, initially identified as the cellular homolog to the retro-viral oncogene v-Akt, is part of the phosphatidyl 3oΩ½?kinase (PI3K)-Akt signaling pathway that is activated by diverse cellular stimuli and regulates critical cellular functions such as cell growth, proliferation, and survival. 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. 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. 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.

Note: This product is for in vitro research use only