

AKT1/AKT2 Polyclonal Antibody

Catalog Number PA1-37053

Product data sheet

Details		Species Reactivity	
Size	1 mL	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Tested Applications	Dilution *
Class	Polyclonal		
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	1:50
Immunogen	Synthetic peptide from N-terminus of human Akt1	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Conjugate	Unconjugated		
Form	Liquid		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

This antibody is predicted to react with bovine, chicken, canine, amphibian, mouse, porcine and rat based on sequence homology. Heat-mediated antigen retrieval is recommended prior to staining, using a 10mM citrate buffer, pH 6.0, for 10 minutes followed by cooling at room temperature for 20 min. Following antigen retrieval, incubate samples with primary antibody for 30 min at room temperature. A suggested positive control is lung carcinoma.

Background/Target Information

AKT1 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT is responsible of the regulation of glucose uptake by mediating insulin-induced translocation of the SLC2A4/GLUT4 glucose transporter to the cell surface. Phosphorylation of PTPN1 at 'Ser-50' negatively modulates its phosphatase activity preventing dephosphorylation of the insulin receptor and the attenuation of insulin signaling. Phosphorylation of TBC1D4 triggers the binding of this effector to inhibitory 14-3-3 proteins, which is required for insulin-stimulated glucose transport. AKT regulates also the storage of glucose in the form of glycogen by phosphorylating GSK3A at 'Ser-21' and GSK3B at 'Ser-9', resulting in inhibition of its kinase activity.

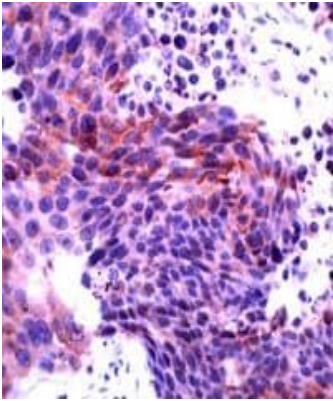
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Product Images For AKT1/AKT2 Polyclonal Antibody



AKT1/AKT2 Antibody (PA1-37053) in IHC
Immunohistochemical analysis of AKT1/AKT2 using a polyclonal antibody (Product # PA1-37053).

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