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#9619
Store at -20C

Immobilized Phospho-(Ser/Thr) Akt Substrate Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Reactivity: All	Sensitivity: Endogenous	Source/Isotype: Rabbit
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol. Store at -20°C. Do not aliquot the antibodies.	
Specificity/Sensitivity	Immobilized Phospho-(Ser/Thr) Akt Substrate Antibody is useful for immunoprecipitation of phosphorylated Akt substrate proteins. This antibody recognizes proteins containing phospho-Ser/Thr preceded by Arg or Lys at positions -5 and -3. It shows some cross-reactivity with phospho-Ser/Thr preceded by Arg or Lys at positions -3 and -2. It does not cross-react with other phospho-Ser/Thr-containing motifs. The antibody is immobilized by conjugation of carbohydrates to cross-linked agarose hydrazide beads. (U.S. Patent No's.: 6,441,140; 6,982,318; 7,259,022; 7,344,714; U.S.S.N. 11,484,485; and all foreign equivalents.)	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a phospho-Akt substrate peptide. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	An important class of kinases, referred to as Arg-directed kinases or AGC-family kinases, includes cAMP-dependent protein kinase (PKA), cGMP-dependent protein kinase (PKG), protein kinase C, Akt, and RSK. These kinases share a substrate specificity characterized by Arg at position -3 relative to the phosphorylated Ser or Thr (1,2). Akt plays a central role in mediating critical cellular responses including cell growth and survival, angiogenesis, and transcriptional regulation (3-5). While a number of Akt substrates are known (such as GSK-3, Bad, and caspase-9) many important substrates await discovery. Akt phosphorylates substrates only at Ser/Thr in a conserved motif characterized by Arg at positions -5 and -3 (6). Phospho-Akt substrate-specific antibodies from Cell Signaling Technology are powerful tools for investigating the regulation of phosphorylation by Akt and other Arg-directed kinases, as well as for high throughput kinase drug discovery.	
Background References	<ol style="list-style-type: none"> 1. Montminy, M. (1997) <i>Annu Rev Biochem</i> 66, 807-22. 2. Pearson, R.B. and Kemp, B.E. (1991) <i>Methods Enzymol</i> 200, 62-81. 3. Marte, B.M. and Downward, J. (1997) <i>Trends Biochem Sci</i> 22, 355-8. 4. Jiang, B.H. et al. (2000) <i>Proc Natl Acad Sci USA</i> 97, 1749-53. 5. Scheid, M.P. and Woodgett, J.R. (2000) <i>Curr Biol</i> 10, R191-4. 6. Alessi, D.R. et al. (1996) <i>FEBS Lett</i> 399, 333-8. 	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Cross-Reactivity Key	All: All Species Expected	
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