

#6950
 Store at -20°C

Phospho-Akt Substrate (RXXS*/T*) (110B7E) Rabbit mAb (HRP Conjugate)


Cell Signaling
 TECHNOLOGY®

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

Applications: WB	Reactivity: All	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG
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Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibodies.	
Specificity / Sensitivity	Phospho-Akt Substrate (RXXS*/T*) (110B7E) Rabbit mAb (HRP Conjugate) recognizes peptides and proteins containing phospho-serine/threonine preceded by arginine at the -3 position. There is some preference observed for peptides that contain phospho-serine/threonine preceded by arginine at both positions -5 and -3.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with synthetic phospho-Akt substrate peptides.	
Product Description	This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Akt Substrate (RXXS*/T*) (110B7E) Rabbit mAb #9614.	
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	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).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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