

Human AKT1 / PKB (Substrate)

Alternate names:	Akt-1, RAC-PK-alpha, Protein kinase B, C-AKT, RAC-alpha serine/threonine-protein kinase
Catalog No.:	AR08011PU-N
Quantity:	0.5 mg
Concentration:	1.0 mg/ml (by weight)
Background:	<p>Akt is a serine/threonine kinase that enhances cell proliferation and inhibits apoptosis when activated. Akt associates with PI(3,4,5)P3 at the cell membrane through its pleckstrin homology domain and is activated through phosphorylation.</p> <p>3-Phosphoinositide-dependent kinase-1 (PDK1) has been shown to first phosphorylate Akt at Thr308, then a second kinase phosphorylates Akt at position Ser473. In turn, Akt phosphorylates a host of proteins including the proapoptotic proteins BAD and pro-caspase-9, GSK3, p21WAF1, MDM2, and the forkhead (FKHR) family of transcription factors.</p>
Uniprot ID:	P31749
NCBI:	NP_001014431
GeneID:	207
Species:	Human
Format:	State: Liquid sterile filtered peptide Purity: >98% pure by HPLC analysis.
Applications:	Western Blot: 1/500-1/2,000. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Description:	A specific substrate for Protein Kinase B alpha (PKB alpha, AKT; $K_m = 5 \mu M$). This peptide is not phosphorylated by p70 S6 kinase or MAP kinase activated protein (MAPKAP) kinase-1. Molecular weight: 817 Daltons
Storage:	Store the antibody (in aliquots) at $-70^\circ C$ or below prior to opening. Avoid repeated freezing and thawing. Shelf life: 6 month from despatch.
General References:	1. Alessi DR, Caudwell FB, Andjelkovic M, Hemmings BA, Cohen P, (1997). Molecular basis for the substrate specificity of protein kinase B; comparison with MAPKAP kinase-1 and p70 S6 kinase. FEBS Lett. 399(3), 333-338.