

Product datasheet for **AP01349PU-M**

AKT1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blot: 1/500-1/1000. Immunohistochemistry on paraffin sections 1/50-1/200. Immunofluorescence: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	Akt antibody detects endogenous levels of Akt protein. (region surrounding Pro125)
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 55 kDa
Gene Name:	AKT serine/threonine kinase 1
Database Link:	Entrez Gene 207 Human P31749



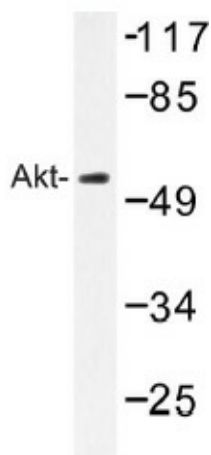
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Background:

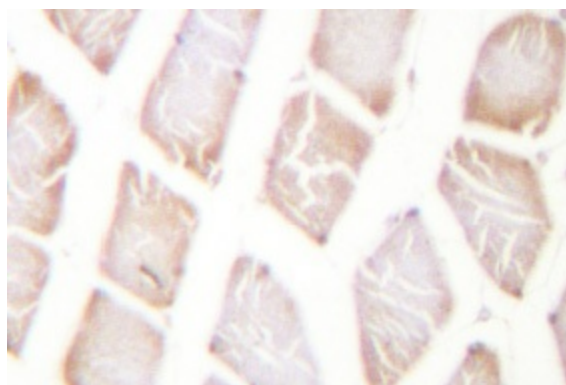
The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 (also designated PKB β or RacPK- β) and Akt3 (also designated PKB γ or thymoma viral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a Pleckstrin homology domain. Akt1 and Akt2 are activated by PDGF stimulation. This activation is dependent on PDGFR- β tyrosine residues 740 and 751, which bind the subunit of the phosphatidylinositol 3-kinase (PI 3-kinase) complex. Activation of Akt1 by insulin or insulin-growth factor-I (IGF-I) results in phosphorylation of both Thr 308 and Ser 473. Phosphorylation of both residues is important to generate a high level of Akt1 activity, and the phosphorylation of Thr 308 is not dependent on phosphorylation of Ser 473 in vivo. Thus, Akt proteins become phosphorylated and activated in insulin/IGF-I-stimulated cells by an upstream kinase(s).

Synonyms:

Akt-1, RAC-PK-alpha, Protein kinase B, C-AKT

Product images:


Western blot (WB) analysis of Akt antibody (Cat.-No.: [AP01349PU-N]) in extracts from HuvEc cells treated with Serum 30% 30'.



Immunohistochemistry (IHC) analysis of Akt antibody (Cat.-No.: [AP01349PU-N]) in paraffin-embedded human skeletal muscle tissue.