

## AKT1/3 (Phospho-Tyr437/434) Antibody

Catalog No: #12116

Package Size: #12116-1 50ul #12116-2 100ul

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## Description

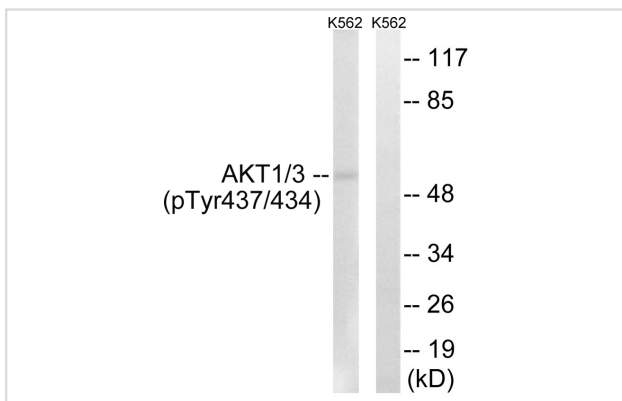
Product Name	AKT1/3 (Phospho-Tyr437/434) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of AKT1/3 only when phosphorylated at tyrosine 437.
Immunogen Type	peptide
Immunogen Description	Peptide sequence around phosphorylation site of tyrosine 437 (T-R-Y(p)-F-D) derived from Human AKT1/3.
Target Name	AKT1/3
Modification	Phospho
Other Names	EC 2.7.11.1; RAC-PK-alpha; Protein kinase B; PKB; C-AKT
Accession No.	Swiss-Prot#:P31749/Q9Y243;NCBI Gene#:207/208/10000
Uniprot	P31749
GeneID	207;
SDS-PAGE MW	56kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

## Application Details

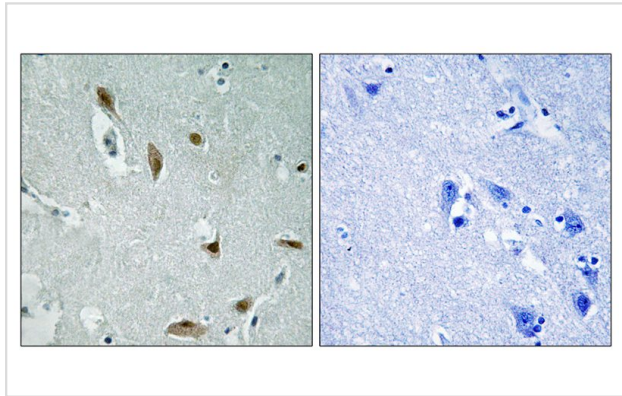
Western blotting: 1:500~1:3000

Immunohistochemistry: 1:50~1:100

## Images



Western blot analysis of extracts from K562 cells, treated with insulin (0.01U/ml, 15mins), using AKT1/3 (Phospho-Tyr437/434) antibody #12116. The lane on the right is treated with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue using AKT1/3 (Phospho-Tyr437/434) antibody #12116. The picture on the right is treated with the synthesized peptide.

## Background

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.

Note: This product is for in vitro research use only