

Product datasheet for **AP50136PU-N**

AKT1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IHC, WB
Recommended Dilution:	ELISA: 1/1000. Western blotting: 1/100 - 1/500. Immunohistochemistry: 1/50 - 1/100. Flow Cytometry: 1/10 - 1/50.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	KLH conjugated synthetic peptide between 289-318 amino acids from human AKT1
Specificity:	This antibody reacts to AKT1.
Formulation:	PBS containing 0.09% (W/V) sodium azide as preservative State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Affinity chromatography on Protein A
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.
Gene Name:	AKT serine/threonine kinase 1
Database Link:	Entrez Gene 207 Human P31749



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Background:

The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Multiple alternatively spliced transcript variants have been found for this gene.

Synonyms:

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

Note:

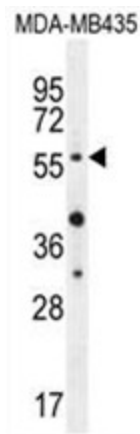
Molecular Weight: 55686 Da

Protein Families:

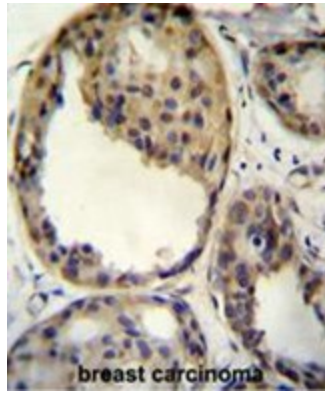
Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

Protein Pathways:

Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway

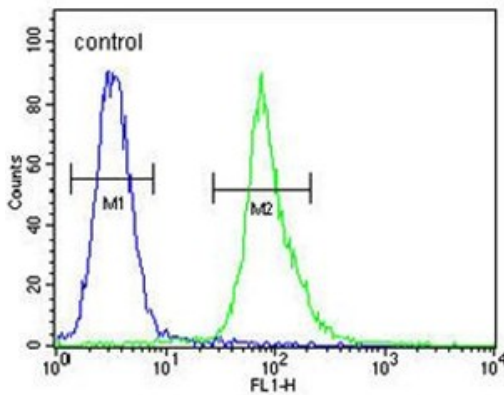
Product images:

AKT1 (Thr308) Antibody western blot analysis in MDA-MB435 cell line lysates (35ug/lane). This demonstrates the AKT1 antibody detected the AKT1 protein (arrow).



AKT1 antibody (Thr308) immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the AKT1 antibody (Thr308) for immunohistochemistry. Clinical relevance has not been evaluated.

MDA-MB435



AKT1 Antibody (Thr308) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.