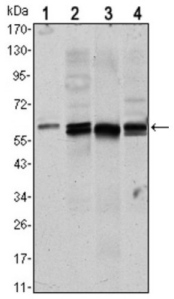
RAC-Alpha Serine/threonine-Protein Kinase (AKT1) Antibody

Catalogue No.:abx011913



Western blot analysis using AKT1 antibody against NIH/3T3 (1), Hela (2), COS7 (3) and Jurkat (4) cell lysate.

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./AKT2 is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains. Furthermore, AKT2 was shown to be amplified and overexpressed in 2 of 8 ovarian carcinoma cell lines and 2 of 15 primary ovarian tumors. Overexpression of AKT2 contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. AKT2 is a general protein kinase capable of phophorylating several known proteins./The protein encoded by this gene is a member of the AKT, also called PKB, serine/threonine protein kinase family. AKT kinases are known to be regulators of cell signaling in response to insulin and growth factors. They are involved in a wide variety of biological processes including cell proliferation, differentiation, apoptosis, tumorigenesis, as well as glycogen synthesis and glucose uptake. This kinase has been shown to be stimulated by platelet-derived growth factor (PDGF), insulin, and insulin-like growth factor 1 (IGF1). Alternatively splice transcript variants encoding distinct isoforms have been described.

Target:	RAC-Alpha Serine/threonine-Protein Kinase (AKT1)
Clonality:	Monoclonal
Reactivity:	Human, Mouse, Monkey
Tested Applications:	ELISA, WB
Host:	Mouse
Recommended dilutions:	ELISA: 1/10000, WB: 1/500 - 1/2000. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	Purified recombinant fragment of human AKT1 expressed in E. coli.
Isotype:	IgG_1

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Form:	Liquid
Purification:	Unpurified ascites.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	P31749 (UniProt, ExPASy) P31751 (UniProt, ExPASy) Q9Y243 (UniProt, ExPASy)
GeneID:	207
Enzyme Commission Number:	EC 2.7.11.1
Molecular Weight:	56 kDa
Buffer:	Ascitic fluid containing 0.03% sodium azide.
Concentration:	Not determined.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

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