OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA389045

Phospho-AKT1 Mouse Antibody [Clone ID: M114]

Product data:

Product Type:	Primary Antibodies
Clone Name:	M114
Applications:	IP, WB
Recommended Dilution:	**WB**: 1:250
Reactivity:	Human, Rat, Mouse
Host:	Mouse
Isotype:	IgG1
Immunogen:	Clone M114 was generated from a peptide containing amino acid residues surrounding Serine 473 in human Akt1. This sequence is highly conserved in human and mouse Akt, and may recognize Akt2 and Akt3.
Specificity:	This antibody detects a 60 kDa* protein corresponding to the apparent molecular mass of Akt on SDS-PAGE immunoblots of mouse NIH3T3 cells treated with PDGF and human A431 cells treated with EGF.
Formulation:	PBS + 0.02% NaN3
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Recommended that the undiluted antibody be aliquoted into smaller working volumes (10-30 uL/vial depending on usage) upon arrival and stored long term at -20° C or -80° C, while keeping a working aliquot stored at 4° C for short term. Avoid freeze/thaw cycles. Stable for at least 1 year.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	60
Database Link:	P31749

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Background: Akt (PKB, Rac kinase) is a 60kDa ser/thr kinase critical for controlling diverse cellular functions, including glucose metabolism, gene transcription, cell proliferation, and apoptosis. Akt phosphorylates a number of substrates including MBP, glycogen synthetase, PKA RII subunit, and histone H1. Akt is activated in response to insulin and growth factors in a PI3-kinase dependent manner. Activation of PI3-Kinase generates phosphatidylinositol 3,4-bisphosphate, which induces membrane translocation of Akt coincident with its phosphorylation at Thr-308 and Ser-473. Upon activation, Akt associates with members of the PKC family of kinases, such as PKCδ and PKCζ. Ceramide-activated PKCζ leads to phosphorylation of Thr-34 within the pleckstrin homology domain of Akt. This phosphorylation inhibits PIP3 binding to Akt preventing activation of the kinase and may lead to cermide-induced cell death.

Note: Protein G purified tissue culture supernatant.