Product Datasheet

Phospho-Akt1 (Ser473) (B9) rabbit mAb Antibody (orb1946159)

Catalog Number	orb1946159
Category	Antibodies
Description	Akt also known as PKB (Protein kinase B) or RAC-PK (Related to the A and C kinases) is a serine/threonine kinases that contains a pleckstrin homology (PH) domain. This protein kinase is activated by insulin and various growth and survival factors to function in a wortmannin sensitive pathway involving PI3 kinase. Akt is activated by phospholipid binding and activation loop phosphorylation at Thr308 by PDK1 and by phosphorylation within the carboxy terminus at Ser473. Phospho-Akt promotes cell survival by inhibiting apoptosis. Specifically, phospho-Akt1 has been shown to phosphorylate Bad, a member of the Bcl-2 family that promotes cell death. This phosphorylation results in the inactivation of the proapoptotic function of Bad. The Akt/phospho Akt molecule is thus considered to link extracellular survival signals (growth factors) with the apoptotic machinery (BAD). Akt is also a key mediator of the metabolic effects of insulin. Additionally, Akt has been referred to as an oncogene because it has increased activity in a number of tumors. This antibody recognizes phospho Akt phosphorylated at Ser473. This phosphorylation site is shared by all three isoforms of phospho Akt. The homologous phosphorylation sites in Akt2 and Akt3 are S474 and S472, respectively.
Clonality	Monoclonal
Species/Host	Rabbit
Isotype	Rabbit IgG1k
Conjugation	Unconjugated
Reactivity	Human, Mouse
Form/Appearance	Liquid

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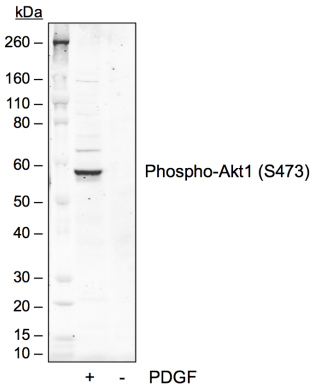
Concentration	0.5 mg/mL
Buffer/Preservatives	1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% rAlbumin
Purification	Protein A+G
Immunogen	A synthetic phospho-peptide corresponding to residues surrounding Ser473 of human phospho Akt1
UniProt ID	**P31749**
Tested applications	FC, WB
Dilution range	1µg/mL - 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.
Cross Reactivity	Predicted to work with mouse, rat and other homologues.
Clone Number	AktS473-B9
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Expiration Date	12 months from date of receipt.



Western blot analysis of NIH3T3 cell extract untreated or treated with PDGF using Phospho-Akt1 (Ser473) antibody AktS473-B9 at 5 ng/mL. Cat. #orb1946159.

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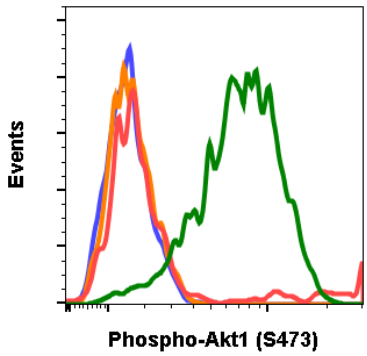
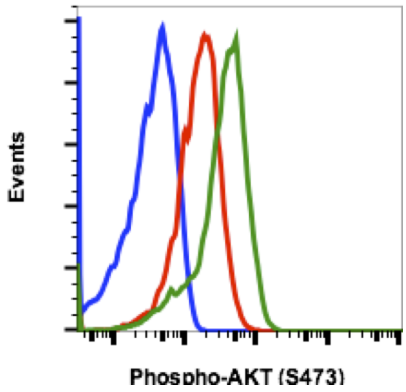
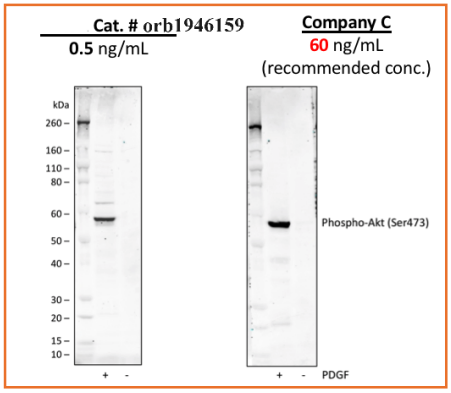


Flow cytometric analysis of C2C12 cells secondary antibody only negative control (blue) or 0.1 µg/mL of isotype control Cat. #orb1946241 (orange) or untreated (red) or treated with staurosporine (green) using Phospho-Akt1 (Ser473) antibody AktS473-B9 at 0.1 µg/mL. Cat. #orb1946159.



Flow cytometric analysis of Jurkat cells treated with LY294002 (red) or with 20% FBS (green) using Phospho-Akt (Ser473) antibody AKTS473-B9 at 0.05 µg/mL. Cat. #orb1946159.



Western blot analysis of NIH3T3 cells untreated or treated with PDGF using 0.5 ng/mL of Phospho-Akt (Ser473) antibody AktS473-B9 Cat. #orb1946159 or Company C antibody at 60 ng/mL (manufacturer's recommended concentration).

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