[pSer^{473}]Akt polyclonal antibody

The Akt (PKB) family of protein kinases are serine/threonine kinases, with three mammalian family members identified to date (Akt1, Akt2, Akt3). Akt is a well-characterized member of PI3 kinase-mediated signaling pathways, regulating cell growth, apoptosis, glycogen synthesis, and other cellular responses through its phosphorylation of downstream substrates. Akt activation is triggered by binding of phospholipid and phosphorylation at two key residues: Thr308 by PDK1, and Ser473 by PDK2, now identified as mTOR. Deregulation of Akt signaling has been associated with cancer, diabetes, and schizophrenia. Akt1 is the cellular homologue of the murine thymoma retroviral oncogene v-akt, and its role in anti-apoptotic and pro-mitotic pathways have made Akt a molecular target for anti-cancer therapeutic intervention. Akt activation inhibits apoptosis by phosphorylating the Bcl-2 related protein Bad, and increases p53 degradation by phosphorylating mdm2. Mitotic substrates of Akt include GSK-3β, p21CIP1, and p27KIP1, cell cycle inhibitors negatively regulated by Akt phosphorylation. Akt has been shown to mediate angiogenesis through regulation of thrombospondins, which may cooperate with pro-mitotic and anti-apoptotic functions of Akt to promote tumorigenesis.

This antibody is covered by our Worry-Free Guarantee.

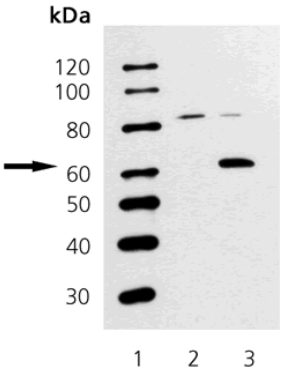
Ordering Information

Order Online »

ADI-905-773-100	100µg

Manuals, SDS & CofA

View Online »



Western blot analysis of Akt (phospho-Ser473). Lane 1: MW, Lane 2: 3T3, Lane 3: 3T3 + PDGF

Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	PKB, Protein kinase B, RAC
Application	WB
Application Notes	Detects a band of ~60kDa by Western blot.
Crossreactivity	Weakly cross-reacts with human, rat, bovine and chicken Akt.
Formulation	Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.
GenBank ID	M63167
Host	Rabbit
Immunogen	Synthetic peptide corresponding to a portion of human Akt1 phosphorylated at Ser473.
Purity Detail	Peptide affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1µg/ml, ECL)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Mouse
UniProt ID	P31749

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