

**DATASHEET**

Version: 2016-08-17

**Akt Antibody (Ser<sup>473</sup>), pAb, Rabbit****Cat. No.:** A00959-40**Size:** 40 µg**Synonyms:** Rabbit Anti-Akt (Ser<sup>473</sup>) pAb;**Description:**

Akt, also known as protein kinase B (PKB), a serine/ threonine kinase, is a critical enzyme in several signal transduction pathways involved in cell proliferation, apoptosis, angiogenesis, and diabetes. Akt is activated following its phosphorylation at two regulatory residues. Phosphorylation of threonine on the kinase domain, catalyzed by PDK1, is essential for Akt activation. Akt activity is augmented approximately 10-fold by phosphorylation at the serine on the hydrophobic motif by PDK2. Phosphorylation of Thr<sup>308</sup> and Ser<sup>473</sup> activates Akt α. Phosphorylation at Thr<sup>309</sup> and Ser<sup>474</sup> on Akt β1 and β2, and on Thr<sup>305</sup> on Akt γ result in their activation. Akt promotes cell survival by inhibiting apoptosis by phosphorylating and inactivating several targets, including Bad, forkhead transcription factors, c-Raf and caspase-9. The activation of Akt is negatively regulated by PTEN, a PIP3 specific phosphatase, and SHIP, a SH2-domain containing inositol 5-phosphatase.

GenScript **Rabbit Anti-Akt (Ser<sup>473</sup>) Polyclonal Antibody** is developed in rabbit using a synthetic peptide corresponding to residues surrounding S473 of human, rat and mouse Akt α, also known as protein kinase B alpha (PKBα), Akt1, and RACα. In addition, this peptide is identical to the sequence surrounding S474 of human, rat and mouse Akt β (Akt2) and S472 of human and mouse Akt γ (Akt3).

**Immunogen:** Synthesized phosphopeptide (KLH conjugated) derived from human Akt around the phosphorylation site of serine 473 (Q-F-S<sup>473</sup>-Y-S)

**Host:** Rabbit**Antigen Synonyms:** Human**Conjugation:** Unconjugated**Predicated Band Size:****Example**

57 kD

**Observed Band Size:**

57 kD

**Formulation:**

0.5 mg/ml, lyophilized with PBS, pH 7.4, containing 0.02% sodium azide

**Ig Subclass:** Rabbit IgG

**Specificity:** Rabbit Anti-Akt (Ser<sup>473</sup>) Polyclonal Antibody detects endogenous human and mouse total Aktα, Aktβ and Aktγ proteins. It has not yet been tested with other species.

**Purification:** Immunoaffinity chromatography**Applications:**

Working concentrations for specific applications should be determined by the investigator. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.05-0.2 µg/ml**Western blot:** 0.5-2.0 µg/ml

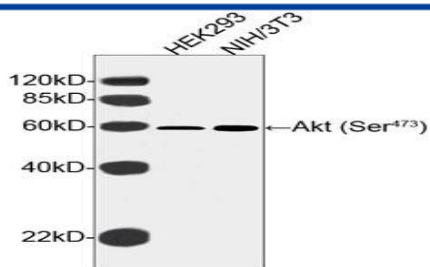
Other applications: user-optimized

**Species Reactivity:** Human, mouse**Reconstitution:**

Reconstitute the lyophilized powder with deionized water (or equivalent) to an antibody concentration of 0.5 mg/ml.

**Storage:**

The antibody is stable in lyophilized form if stored at -20°C or below. The reconstituted antibody can be stored for 2-3 weeks at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.



Western blot analysis of cell lysates using Akt Antibody (Ser<sup>473</sup>), pAb, Rabbit (GenScript, A00959, 1 µg/ml)

The signal was developed with Goat Anti-Rabbit IgG (H&L) [HRP] Polyclonal Antibody (GenScript, A00098) and LumiSensor™ HRP Substrate Kit (GenScript, L00221).

Predicted Size: 57 kD

Observed Size: 57 kD