

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Akt1 in Western blots. Does not detect recombinant Akt2 or Akt3 in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Akt1 Ser2-Ala480 Accession # P31749
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Simple Western	1 µg/mL	See Below

DATA

Western Blot

Detection of Human, Mouse, and Rat Akt1 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, HepG2 human hepatocellular carcinoma cell line, TS1 mouse helper T cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 0.1 µg/mL Rabbit Anti-Human/Mouse/Rat Akt1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1775) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band for Akt1 was detected at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Western Blot

Detection of human Akt1 by Western Blot. Western blot shows recombinant human Akt1, Akt2, and Akt3 (1 ng/lane). PVDF membrane was probed with 0.1 µg/mL Rabbit Anti-Human/Mouse/Rat Akt1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1775) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band for Akt1 was detected at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human Akt1 by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Akt1 at approximately 63 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human/Mouse/Rat Akt1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1775). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Akt, also known as protein kinase B (PKB), is a central kinase in such diverse cellular processes as glucose uptake, cell cycle progression, and apoptosis. Three highly homologous members define the Akt family: Akt1 (PKB α), Akt2 (PKB β), and Akt3 (PKB γ). Akt1 is the most ubiquitously expressed family member. All three Akts contain an amino-terminal pleckstrin homology domain, a central kinase domain, and a carboxyl-terminal regulatory domain.