

DESCRIPTION

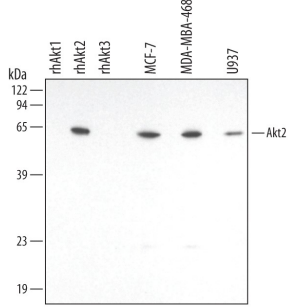
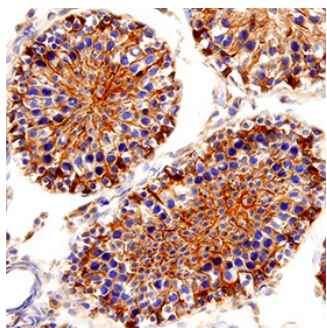
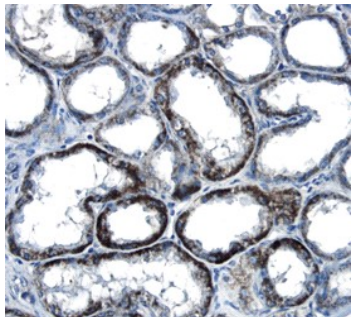
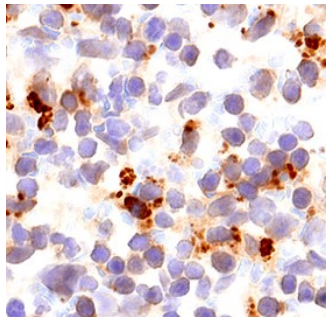
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Akt2 in Western blots. Also detects recombinant human Akt2 but not recombinant Akt1 or Akt3 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant human Akt2 Accession # P31751
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

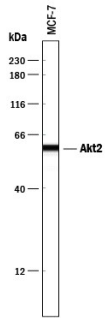
Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Immunohistochemistry	3-15 µg/mL	See Below
Simple Western	5 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human/Mouse/Rat Akt2 by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, MDA-MB-468 human breast cancer cell line, and U937 human histiocytic lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL Goat Anti-Human/Mouse/Rat Akt2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF23151) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). For additional reference, Recombinant Human Active Akt1 (Catalog # 1775-KS), recombinant human Akt2, and recombinant human Akt3 (5 ng/lane) were included. A specific band for Akt2 was detected at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>Akt2 in Rat Testis. Akt2 was detected in perfusion fixed frozen sections of rat testis using Goat Anti-Human/Mouse/Rat Akt2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF23151) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p>
<p>Immunohistochemistry</p>  <p>Akt2 in Human Kidney Cancer Tissue. Akt2 was detected in immersion fixed paraffin-embedded sections of human kidney cancer tissue using 15 µg/mL Goat Anti-Human/Mouse/Rat Akt2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF23151) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to epithelial cells in tubules. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>	<p>Immunohistochemistry</p>  <p>Akt2 in Mouse Spleen. Akt2 was detected in perfusion fixed frozen sections of mouse spleen using Goat Anti-Human/Mouse/Rat Akt2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF23151) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p>

Simple Western



Detection of Human Akt2 by Simple Western™. Simple Western lane view shows lysates of MCF-7 human breast cancer cell line, loaded at 0.2 mg/mL. A specific band was detected for Akt2 at approximately 60 kDa (as indicated) using 5 µg/mL of Goat Anti-Human/Mouse/Rat Akt2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF23151) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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.

- 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

The serine/threonine kinase Akt, also known as protein kinase B (PKB), is a central regulator of such diverse cellular processes as glucose uptake, cell cycle progression, and apoptosis. In mammals, three highly homologous members define the Akt family: Akt1 (PKB α), Akt2 (PKB β), and Akt3 (PKB γ). Akt2 is expressed predominantly in insulin target tissues such as liver, skeletal muscle, and fat. All three Akts contain an amino-terminal pleckstrin homology domain, a central kinase domain, and a carboxyl-terminal regulatory domain.