

Human/Mouse/Rat Akt1 Antibody

Monoclonal Mouse IgG_{2A} Clone # 232790 Catalog Number: MAB1775

DESCRIPTION	
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Akt1 in Western blots. In Western blots, no cross-reactivity with recombinant human Akt2 or Akt3 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 232790
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-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 either lyophilized or as a 0.2 µm filtered solution in PBS.

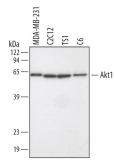
APPLICATIONS

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	0.2 μg/mL	See Below
Knockout Validated	Akt1 is specifically de Akt1 knockout HeLa	tected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in ell line.

DATA

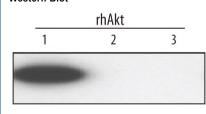
Western Blot



Detection of Human, Mouse, and Rat Akt1 by Western Blot.

Western blot shows lysates of MBA-MB-123 human breast cancer cell line, C2C12 mouse myoblast cell line, TS1 mouse helper T cell line, and C6 rat glioma cell line. PVDF membrane was probed with 0.2 µg/mL Mouse Anti-Human/Mouse/Rat Akt1 Monoclonal Antibody (Catalog # MAB1775) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). 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 3.

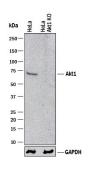
Western Blot



Detection of Human Akt1 by Western Blot.

Western blot shows recombinant human Akt1, Akt2, and Akt3 (5 ng/lane). PVDF membrane was probed with 0.2 µg/mL Mouse Anti-Human/Mouse/Rat Akt1 Monoclonal Antibody (Catalog # MAB1775) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog #HAF007). 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 3.

Knockout Validated



Western Blot Shows Human Akt1 Specificity by Using Knockout Cell Line.

Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Atk1 knockout HeLa cell line (KO), PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human/Mouse/Rat Akt1 Monoclonal Antibody (Catalog # MAB1775) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Akt1 at approximately 72 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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Human/Mouse/Rat Akt1 Antibody

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Reconstitution	Reconstitute at 0.5 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

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 (PKBα), Akt2 (PKBβ), and Akt3 (PKBγ). 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.

