

DESCRIPTION

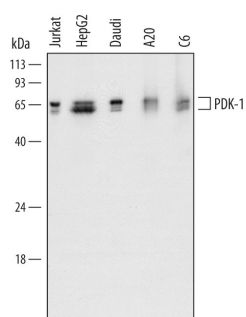
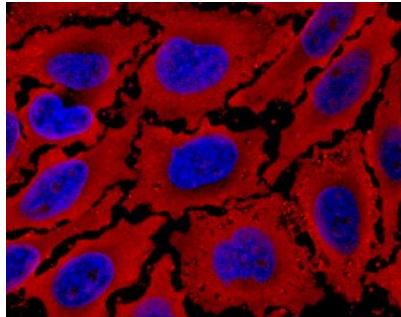
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat PDK-1 in Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 650308
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PDK-1 Asn411-Gln556 Accession # O15530
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	1 µg/mL	See Below
Immunocytochemistry	5-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human, Mouse, and Rat PDK-1 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, HepG2 human hepatocellular carcinoma cell line, Daudi human Burkitt's lymphoma cell line, A20 mouse B cell lymphoma cell line, and C6 rat glioma cell line. PVDF Membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat PDK-1 Monoclonal Antibody (Catalog # MAB864) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for PDK-1 at approximately 58-68 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>PDK-1 in HeLa Human Cell Line. PDK-1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat PDK-1 Monoclonal Antibody (Catalog # MAB864) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
--	--

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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

PDK-1 (3-phosphoinositide-dependent protein kinase, gene name PDK1) is a 58-68 kDa, 556 amino acid (aa) monomeric protein of the AGC serine/threonine kinase family. It is activated by phosphorylation in the presence of PtdIns(3,4,5) P3 or PtdIns(3,4) P2. Akt, S6 kinases, PKA and PKC-ζ are reported PDK-1 substrates. Through Akt, PDK-1 mediates many of the intracellular actions of insulin. Within the region used as an immunogen, human PDK-1 shares 98% aa identity with mouse and rat PDK-1. One reported isoform has an alternate start site at aa 50, while another lacking aa 238-263 is predicted to be catalytically inactive.