



**Mouse (monoclonal)
Anti-Human PRAS40
Unconjugated**

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1031
Lot Number:	See product label
Quantity/Volume:	100 µg/200 µL
Clone Number:	73P21
Isotype:	IgG1 kappa
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline containing 1% BSA.
Preservative:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified by Protein A/G affinity chromatography.
Immunogen:	Recombinant full length human PRAS40 expressed in <i>E. coli</i> .
Myeloma/Fusion Partners:	BALB/c mouse splenocytes were fused with FO myeloma cells.
Specificity:	<p>Proline-Rich AKT Substrate (PRAS40) is a 40 kDa substrate of AKT. Activated AKT phosphorylates PRAS40 on threonine 246, enabling PRAS40 to bind to 14-3-3.</p> <p>AKT and PRAS40 are components of the phosphoinositide 3-kinase (PI3K) pathway. This pathway plays a role in glucose uptake, cell growth, and apoptosis inhibition. The precise function of PRAS40 is not yet known; however, it has been hypothesized that PRAS40 interacts with SH3 and WW domain containing proteins, and may change the function of these proteins.</p> <p>In Western blot analysis with HeLa cell extracts, this antibody reacts with a 40 kDa band. This band is absent from PRAS40 siRNA-treated HeLa cell extracts.</p>
Species Reactivity:	Human. This antibody does not cross-react with mouse. Other species were not tested.
Applications:	The antibody has been used for Western blotting applications and immunoprecipitation.
Suggested Working Dilutions:	For Western blotting applications, we recommend using the antibody at 0.1-1.0 µg/mL. The optimal antibody concentration should be determined empirically for each specific application.
Storage:	Store at 2-8°C for up to one month. For long term storage, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.
Recommended Positive Controls:	HeLa cells; Jurkat cells.

This product is for research use only. Not for use in diagnostic procedures.

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PIAHO1031 (Rev 10/08)

(Page 1 of 2) DCC-08-1089

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References:

Kovacina, K.S., et al. (2003) Identification of a proline-rich Akt substrate as a 14-3-3 binding partner. *J. Biol. Chem.* 278:10189-10194.

Cantley, L.C. (2002) The phosphoinositide 3-kinase pathway. *Science* 296(5573):1655-1657.

Lizcano, J.M. and D.R. Alessi (2002) The insulin signaling pathway. *Curr. Biol.* 12(7):R236-R238.

Cho, H., et al. (2001) Akt1/PKBalpha is required for normal growth but dispensable for maintenance of glucose homeostasis in mice. *J. Biol. Chem.* 276(42):38349-38352.

Related Products:**Antibodies:**

AKT/PKB [pS473], Cat. # 44-621G

PRAS40 [pT246] antibody. Cat. # 44-1100G

Assays:

AKT (total) ELISA kit, Cat. # KHO0101

AKT [pS473] ELISA kit, Cat. # KHO0111

AKT [pT308] ELISA kit, Cat. # KHO0201

PRAS40 (total) ELISA kit, Cat. # KHO0411

PRAS40 [pT246] ELISA kit, Cat. # KHO0421

Inhibitors:

PI3K inhibitor LY294002, Cat. # PHZ1144



Extract prepared from human HeLa cells was resolved by SDS-PAGE on a 4-20% polyacrylamide gel and transferred to PVDF. The membrane was blocked with a 5% milk-TBST buffer and then incubated with this PRAS40 monoclonal antibody (clone 73P21) at a concentration of 0.50 µg/mL in a 5% milk-TBST buffer for two hours at room temperature. After washing, the membrane was incubated with goat F(ab')₂ anti-mouse IgG alkaline phosphatase (Cat. # AMI4405) and the signal was detected using the Tropix WesternStar™ method.

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(Page 2 of 2) DCC-08-1089

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