

PRAS40 (H-216): sc-67042

BACKGROUND

Akt, also known as protein kinase B is one of the major downstream targets of the phosphatidylinositol 3-kinase pathway. This protein kinase has been implicated in Insulin signaling, stimulation of cellular growth, inhibition of apoptosis and transformation of cells. The proline-rich Akt substrate PRAS40, also designated AKT1S1, becomes phosphorylated by activated Akt on Ser or Thr residues in the motif RXRXX(S/T). Phosphorylated PRAS40 subsequently binds 14-3-3 in a sequence-specific manner, thereby inducing such changes as alteration of protein subcellular localization and regulation of intrinsic enzymatic activity. Studies also suggest that PRAS40 phosphorylation and its interaction with pAkt and 14-3-3 may play an important role in neuroprotection mediated by NGF in apoptotic neuronal cell death after cerebral ischemia. PRAS40 maps to human chromosome 19q13.33.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: AKT1S1 (human) mapping to 19q13.33; Akt1s1 (mouse) mapping to 7 B4.

SOURCE

PRAS40 (H-216) is a rabbit polyclonal antibody raised against amino acids 61-256 mapping at the C-terminus of PRAS40 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PRAS40 (H-216) is recommended for detection of PRAS40 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PRAS40 siRNA (h): sc-44635, PRAS40 siRNA Plasmid (h): sc-44635-SH and PRAS40 shRNA (h) Lentiviral Particles: sc44635-V.

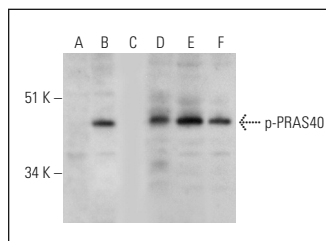
Molecular Weight of PRAS40: 40 kDa.

Positive Controls: EGF treated HeLa whole cell lysate or Insulin treated HeLa whole cell lysate.

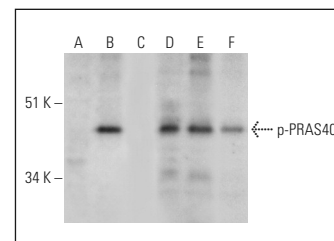
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of PRAS40 phosphorylation in untreated (A), EGF treated (B), and EGF and lambda protein phosphatase (C) treated HeLa whole cell lysates. Antibodies tested include p-PRAS40 (Thr 246): sc-32629 (A, B, C) and PRAS40 (H-216): sc-67042 (D, E, F).



Western blot analysis of PRAS40 phosphorylation in untreated (A), insulin treated (B), and insulin and lambda protein phosphatase (C) treated HeLa whole cell lysates. Antibodies tested include p-PRAS40 (Thr 246): sc-32629 (A, B, C) and PRAS40 (H-216): sc-67042 (D, E, F).

SELECT PRODUCT CITATIONS

- Wen, X.R., et al. 2015. Neuroprotection of sevoflurane against ischemia/reperfusion-induced brain injury through inhibiting JNK3/caspase-3 by enhancing Akt signaling pathway. *Mol. Neurobiol.* E-Published.

RESEARCH USE

For research use only, not for use in diagnostic procedures.