**BACKGROUND**

The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKBα or RacPK), Akt2 (also designated PKBβ or RacPK-β) and Akt3 (also designated PKBγ or thymoviral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a Pleckstrin homology domain. Akt3 is phosphorylated on a serine residue in response to Insulin. However, the activation of Akt3 by Insulin is inhibited by prior activation of protein kinase C via a mechanism that does not require the presence of the PH domain. Akt3 is expressed in 3T3-L1 fibroblasts, adipocytes and skeletal muscle and may be involved in various biological processes, including adipocyte and muscle differentiation, glycogen synthesis, glucose uptake, apoptosis and cellular proliferation.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: AKT3 (human) mapping to 1q43; Akt3 (mouse) mapping to 1H4.

**SOURCE**

Akt3 (EE-M14) is a mouse monoclonal antibody raised against recombinant Akt3 protein of human origin.

**PRODUCT**

Each vial contains 100 µg IgG2a kappa light chain 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**

Akt3 (EE-M14) is recommended for detection of Akt3 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Akt3 siRNA (h): sc-38911, Akt3 siRNA (m): sc-38912, Akt3 siRNA (r): sc-108064, Akt3 shRNA Plasmid (h): sc-38911-SH, Akt3 shRNA Plasmid (m): sc-38912-SH, Akt3 shRNA Plasmid (r): sc-108064-SH, Akt3 shRNA (h) Lentiviral Particles: sc-38911-V, Akt3 shRNA (m) Lentiviral Particles: sc-38912-V and Akt3 shRNA (r) Lentiviral Particles: sc-108064-V.

Molecular Weight of Akt3: 60 kDa.

Positive Controls: LNCaP cell lysate: sc-2231, HeLa whole cell lysate: sc-2200 or C2C12 whole cell lysate: sc-364188.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGk BP-HRP: sc-516102 or m-IgGk BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use ProteinA/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

Akt3 (EE-M14) sc-134254: Western blot analysis of Akt3 expression in LNCaP (A), DU 145 (B), C2C12 (C), Sol8 (D), C6 (E) and L8 (F) whole cell lysates.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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