**BACKGROUND**

Phosphatidylinositol 3-kinase (PI 3-kinase) phosphorylates the 3’ OH position of the inositol ring of inositol lipids and is composed of p85 and p110 subunits. PI 3-kinase p85 lacks PI 3-kinase activity and acts as an adapter, coupling p110 to activated protein tyrosine kinase. Both PI 3-kinase p85α and PI 3-kinase p85β possess one SH3 and two SH2 domains. PI 3-kinase p85α, also known as GRB1, phosphatidylinositol 3-kinase regulatory 1 or p85, is a 724 amino acid protein that exists as 4 alternatively spliced isoforms. Involved in Insulin metabolism, defects in the PI 3-kinase p85α gene have been linked to Insulin resistance. PI 3-kinase p85α is polyubiquitinated in T cells by Cbl-b, and has multiple phosphorylated amino acid residues, including a phosphorylated tyrosine residue at position 467. PI 3-kinase p85α contains 1,102 amino acids and is encoded by a gene that maps to human chromosome 7.

**SOURCE**

PI 3-kinase p85αβ/p55γ (D-9) is a mouse monoclonal antibody raised against amino acids 323-596 mapping within an internal region of PI 3-kinase p85β of human origin.

**PRODUCT**

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

PI 3-kinase p85αβ/p55γ (D-9) is available conjugated to agarose (sc-374534 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374534 HRP), 200 µg/ml, for WB, HRP and ELISA; to either phycoerythrin (sc-374534 PE), fluorescein (sc-374534 FITC), Alexa Fluor® 488 (sc-374534 AF488), Alexa Fluor® 546 (sc-374534 AF546), Alexa Fluor® 594 (sc-374534 AF594) or Alexa Fluor® 647 (sc-374534 AF647), 200 µg/ml, for WB (RGB), IF, IF/ICC and FCM; and to either Alexa Fluor® 680 (sc-374534 AF680) or Alexa Fluor® 790 (sc-374534 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

*Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**APPLICATIONS**

PI 3-kinase p85αβ/p55γ (D-9) is recommended for detection of PI 3-kinase p85α, PI 3-kinase p85β and PI 3-kinase p55γ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PI 3-kinase p85αβ/p55γ (D-9) is also recommended for detection of PI 3-kinase p85α, PI 3-kinase p85β and PI 3-kinase p55γ in additional species, including canine and bovine.

Molecular Weight of PI 3-kinase p85αβ/p55γ isoforms: 84/53/50 kDa.

Positive Controls: SW480 cell lysate: sc-2201, A-431 whole cell lysate: sc-2201 or COLO 205 whole cell lysate: sc-364177.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.