**BACKGROUND**

Phosphatidylinositol 3-kinase is a lipid kinase that phosphorylates the inositol ring of phosphatidylinositol and related compounds at the 3' position. PI 3-kinase p55γ (PIK3R3) is comprised of a catalytic subunit and a regulatory subunit. The human p55γ protein is composed of a rare amino terminal region followed by a proline-rich motif and two Src homology 2 (SH2) domains. PI 3-kinase p55γ mRNAs are expressed in most human fetal and adult tissues; predominant expression is observed in the adult testes. Splice variants of PI 3-kinase p55γ have been identified; one of which has a deletion of 36 amino acids at the amino terminus and another which has an insertion of 59 amino acids at position 256 between the SH2 domains. Research suggests that PI 3-kinase p55γ interacts with the IGFIR (Insulin-like growth factor-I receptor) and IR (Insulin receptor) and may be involved in PI 3-kinase activation by these receptors.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PIK3R3 (human) mapping to 1p34.1.

**SOURCE**

PI 3-kinase p55γ (E-9) is a mouse monoclonal antibody raised against amino acids 333-380 mapping within an internal region of PI 3-kinase p55γ 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 p55γ (E-9) is available conjugated to agarose (sc-376615 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376615 HRP), 200 µg/ml, for WB, HRP, and ELISA; to either phycoerythrin (sc-376615 PE), fluorescein (sc-376615 FITC), Alexa Fluor® 488 (sc-376615 AF488), Alexa Fluor® 546 (sc-376615 AF546), Alexa Fluor® 594 (sc-376615 AF594) or Alexa Fluor® 647 (sc-376615 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376615 AF680) or Alexa Fluor® 790 (sc-376615 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

PI 3-kinase p55γ (E-9) is recommended for detection of PI 3-kinase p55γ of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PI 3-kinase p55γ siRNA (h): sc-39124, PI 3-kinase p55γ shRNA Plasmid (h): sc-39124-SH and PI 3-kinase p55γ shRNA (h) Lentiviral Particles: sc-39124-V.

Molecular Weight of PI 3-kinase p55γ: 55 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237 or MCF7 whole cell lysate: sc-2206.

**RECOMMENDED SUPPORT REAGENTS**

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

1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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 Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG Plus-Plus-Agarose: sc-2003 (0.5 ml agarose/2.0 ml) and IR (Insulin receptor) and may be involved in PI 3-kinase activation by these receptors.

**DATA**

![Data](Image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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