Pl 3-kinase p110δ (A-8): sc-55589

**BACKGROUND**

Phosphatidylinositol 3-kinase (PI 3-kinase) is composed of p85 and p110 subunits. p85 lacks PI 3-kinase activity and acts as an adapter, coupling p110 to activated protein tyrosine kinase. Two forms of p85 have been described (p85α and p85β), each possessing one SH3 and two SH2 domains. Various p110 forms have been identified; p110α and p110β interact with p85α, and p110γ has also been shown to interact with p85β in vitro. It has been shown to bind p85α and β, but it apparently does not phosphorylate these subunits. p110α has the capacity to autophosphorylate and results in the nearly complete inactivation of the lipid kinase activity. Interestingly, p110γ does not interact with the p85 subunits and has been shown to be activated by α and βγ heterotrimeric G proteins. Two p110δ isoforms have been identified and are widely expressed. Isoform 1 is expressed predominantly in leukocytes while isoform 2 is expressed in normal thymus, lung and spleen tissues.

**SOURCE**

PI 3-kinase p110α (A-8) is a mouse monoclonal antibody raised against amino acids 363-582 mapping at the N-terminus of PI 3-kinase p110α of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PI 3-kinase p110α (A-8) is available conjugated to agarose (sc-55589 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55589 HRP), 200 µg/ml, for WB, IF, ELISA; to either phycoerythrin (sc-55589 PE), fluorescein (sc-55589 FITC), Alexa Fluor® 488 (sc-55589 AF488), Alexa Fluor® 546 (sc-55589 AF546), Alexa Fluor® 594 (sc-55589 AF594) or Alexa Fluor® 647 (sc-55589 AF647), 200 µg/ml, for WB (RGB), IF, IFOP and FCM; and to either Alexa Fluor® 680 (sc-55589 AF680) or Alexa Fluor® 790 (sc-55589 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Pl 3-kinase p110α (A-8) is recommended for detection of Pl 3-kinase p110α 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).


Molecular Weight of Pl 3-kinase p110α isoforms: 119/33 kDa.

**STORAGE**

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

**DATA**

Pl 3-kinase p110α (A-8): sc-55589. Western blot analysis of Pl 3-kinase p110α expression in C32 (A), NIH3T3 (B), K-562 (C), Raji (D) and Jurkat (E) whole cell lysates.

Pl 3-kinase p110α (A-8): sc-55589. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeleton localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining of neuronal and glial cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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